



The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 2.]

JANUARY 13, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director, Planting Districts, reproduces a long and interesting communication from the Imperial Entomologist on the Tiger Beetle Borer of Coffee of which, though it has been found in Coffee and Tea in Southern India, little seems to be known. It is due to Mr. Poyser's letter that light has been thrown on the subject.

It is good news that the Rothamsted Experiments are still being carried on, and have not been greatly affected by the War.

We publish the Minutes of an Extraordinary General Meeting of the Anamalai Planters' Association.

We reproduce from the *Board of Trade Journal* the average prices of wheat, barley, oats from 1909-1916.

Our weekly article on Markets, Prices and Statistics dealing with Coffee, Tea and Rubber appears in this issue.

We publish from the *Indian Rubber Journal* an article on Indian Labourers in British Malaya. Indentured Labour as regards South India Labour is unknown. "Labourers are landed free of debt and are at liberty to leave their employment at any time upon giving a month's notice. Further, no Indian immigrant can enter into a written contract to serve as a labourer." We hope to be able shortly to publish an article from a practical planter as to the working of Labour in the Malaya, dealing not only with South Indian labour, but with those from other sources from which they draw it, and their comparative worth.

We are indebted to Mr. Riley, of the Straits, for an article on Factories.

The Deputy Director of Agriculture, Planting Districts, goes on tour from the 14th. He has been busy during the week at the meetings of the Science Congress which has met in Bangalore.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	57,047	8	2
Mr. R. Lescher	...	...	30	0	0
Mr. J. M. Wilkie	...	...	60	0	0
Total...			57,137	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

Tiger Beetle Borer of Coffee.

With reference to Mr Poyser's letter published in the *Chronicle* (Vol. XI. p. 622) and the identification of the Coffee boring insect by Dr. Coleman as *Collyris emarginatus*, we have received a long communication from the Imperial Entomologist on the subject, which is reproduced below for the benefit of those of our readers who are entomologists.

For the general reader the situation may be summed up by saying that though this borer has been found in both Coffee and Tea in Southern India, it is apparently rare and little is known about the life history of the insect. The larva is not adapted for boring and can only make an excavation in soft pith or rotten wood. It lives in this tunnel and feeds on Aphids and small ants which infest the bushes, seizing them as they go near the mouth of the tunnel, so that in this respect it is a beneficial insect. The perfect insect is a small metallic blue beetle which is very active and flies readily and rapidly.

The Imperial Entomologist writes as follows:—

Dr. Coleman's identification of the insect as *Collyris emarginatus* is unfortunate because it happens that *Neocollyris emarginata* (to use its proper name) is Javanese and not an Indian species at all, but I assume that the insect is a Collyrine of which group comparatively little is known regarding the immature stages. The little on record is abstracted in Canon Fowler's Volume on Cicindelidae (Tiger Beetles) in the Fauna of India series, from which I copy the following which may be of interest to Mr. Poyser.

"Very little is known of the life history of the group; but the larva of a species, which has been referred to *Collyris emarginata*, Dej. has been found making burrows in the fine twigs of the Coffee shrub. It apparently lives in these and preys on aphides, small ants, etc., which approach the entrance to the burrow; its habits therefore are analagous to those of the larvae of *Cicindela*, though they differ widely in habit. As so little is known of the genus it may perhaps be well to quote at length Mr. R. Shelford's notes (Proc. Ent. Soc. London, 1905, pp. lxxii—iii) in which he gives an account of habits of the larvæ—'In "Mededeelingennuit lands Plantentuin" xliv, 1905, p. 113, Dr. J. C. Koningsberger of the Buitenzorg Zoological Museum, published a brief notice of the larva of the Cicindelid beetle, *Collyris emarginata*, Dej. burrowing the twigs of Coffee shrubs. I noticed a preparation illustrating this remarkable habit for a Cicindelid larva in the museum at Buitenzorg in March of this year, but it was inside a locked case and, as Dr. Koningsberger was on leave in Europe, I was unable to make a close examination of the larva and its burrow. In answer to a request for material and information on the species Dr. Koningsberger has kindly sent me the specimens which I now have pleasure in exhibiting to this Society. Dr. Koningsberger tells me that the larva feeds on the ants and aphides that crawl over the Coffee twigs; pupation takes place in the burrow; oviposition has not been witnessed, nor have any but full grown, or nearly full grown, larvae been found, so that it is not known if the burrow is enlarged to allow of the increase in size of its occupant, or if it is originally made large enough to accommodate the larva throughout its life. A figure of the larva is published in the above mentioned work, but it is evidently only a copy of the figure of a Cicindelid larva in Packard's Guide to the study of insects, and is quite inadequate.'

"Since the above was written Mr. Shelford has published a full description (with figures) of the larva, which is now assigned without doubt

to *Collyris emarginata*, Dej. (Trans. Ent. Soc. Lond. 1907. pp. 83-88. pl. iii.) and has added various notes concerning the peculiar genital armature of *Collyris* and its use. I had a good deal of correspondence with Mr. Shelford before his paper appeared on the formation of the hooks and appendages, and quite agree with his conclusions. As no other larva of *Collyris* appears to be definitely known it may be well to append the chief points of his long and detailed description:—

‘Largest specimen 12 mms. in length. The head is typically that of a Cicindelid, being strongly chitinised, swollen and concave beneath and flattened above; the mouthparts are prominent and point in an upward direction. The mandibles are strong and curved and each bears a tooth on its inner margin at the centre; the space beyond this tooth is grooved anteriorly and near it the edge is sharp. The larva is therefore plainly carnivorous and not in any sense lignivorous, but is apparently able to excavate an unresisting substance such as pith of the twigs in which it lives. The body consists of thirteen segments and is seen at once to differ from that of a typical Cicindelid larva by the absence of a marked sigmoid flexure and by the absence of large dorsal tubercles armed with strong hooks on the eighth segment; this eighth segment, however, to a large extent retains its Cicindelid character, for it is swollen into a hump dorsally, and the hump is furnished with three small hooks on each side, and with numerous stout setae, both the hooks and setae being directed forwards; the twelfth segment is much narrower and very much shorter than the preceeding and the thirteenth is small and sucker-like with six short spines and numerous fine setae on its posterior margin; segments 4—12 bear at the sides a small warty process or tubercle furnished with three setae. The legs are moderately long, the front pair being stout and adapted for digging out the pith of the twig in which the larva lives; the second and third pairs are carried with the femora straight out from the body and the armature of the eighth segment evidently brace the insect in its burrow, and prevent it from being pulled out of it by the struggles of larger insects which it may catch.”

“The mouth of the burrow is counter-sunk (a structure which has been observed by Mr. A. H. Hamm in the sand burrows of the British Cicindelidæ) and Mr. Shelford says that he has no doubt but that the lower surface of the head of the *Collyris* larvæ fills completely the orifice of the burrow when the insect is awaiting its prey, the jaws projecting into the counter-sunk area.”

“The adult *C. emarginata* according to those who have observed it is arboreal in its habits, being remarkably fleet and taking readily to wing. Mr. Shelford says that in Borneo it is mimicked by a flower-haunting fly of the genus *Sepedon* (Troc. Zool. Soc. 1902 (2) p. 264); it feeds on small insects and is not herbivorous.”

“Just as this book is going to press the last volume of the Zoological Record has been published, and I find that I have missed a paper by Dr. van Leeuwen in the Tijdschrift voor Entomologie. June 1910, pp. 18—40, plates 2 and 3, entitled “Usher die Lebensweise und die Entwicklung einiger holzbehrenden Cicindeliden-Larven” and containing the life histories of *Collyris bonelli* and *tuberculata* and of *Tricondyla cyanea*. We have no space to enter into details of this paper, further than to state the remarkable similarity of the *Tricondyla* larva to that of *Collyris*; the fifth abdominal segment is humped in the same way and has the three small hooks on each side, and the insect has the same habit of making burrows in the stems of the Coffee shrub and seizing its prey at the entrance of these. It is, of course, larger, being 20 mms in length, but otherwise there is very little difference.”

"Mr. H. E. Andrews has kindly sent me a letter, received from Mr. H. Leslie Andrews, which throws further interesting light on the life history of *Collyris*; he writes as follows:—"I was pruning some four year old Tea, and when cutting through a branch about two years old, I went through the fore portion of the abdomen of a *Collyris* sp imago, and the front part wriggled out of the hole and dropped on the ground. The branch was about five-eighths of an inch thick. There was an external hole (presumably for getting rid of excrement) at an angle of about 120 with the burrow in which the beetle was. It was stopped up with blackish excrement. There was a very little powdered stuff in one end of the hole which had evidently been a pupal envelope of some kind, presumably that of the *Collyris*." Mr. Andrews does not think that the beetle could possibly have got into the branch for predatory purposes and, as far as he could judge, it had lived in the boring from the egg stage."

"The occurrence of *Collyris* in both Tea and Coffee shrubs is very interesting and may ultimately prove to be of economic importance, whether for good or evil seems a matter of doubt; on the one hand the borings, if numerous, must apparently injure the trees, while on the other hand large numbers of injurious insects must be destroyed by the voracious larvæ."

Mr. Andrews' note is of particular interest to us as his observations were made in the Nilgiris.

I may add that we have found at Pusa a Collyrine larvæ boring in twigs of *Zizyphus jujuba* in a very similar manner. Hitherto we have not been able to rear out the beetle, but it is probably *Neocollyris bonelli ortygia* which I have seen at Pusa ovipositing in *Zizyphus* twigs.

The adult beetles are likely to emerge about March—May and will be slender, long-legged beetles, about three-fifths of an inch long, dark metallic blue in colour.

Rothamsted Experiments.

Nature says that at the annual meeting of the Society for Extending the Rothamsted Experiments, held on November 6th an address was given by the Rt. Hon. the Earl of Crawford and Balcarres, President of the Board of Agriculture, who sketched briefly the history of the Rothamsted Experiment Station and the part it has played in the development of British agriculture. During the war the work of the Station has necessarily been modified. Two-thirds of the total staff are either fighting or engaged in direct war work, the special experience gained at Rothamsted having proved unexpectedly useful in certain highly important directions. Some of the staff held commissions in the Sanitary Corps; some are engaged under the Ministry of Munitions in the large scale manufacture of a certain indispensable constituent of high explosives; while some are fighting in infantry regiments. Those left at the laboratory are kept occupied with special enquiry work sent in by the Board of Agriculture and other Departments. Nevertheless, the ordinary work is still being continued. Women workers have come in to take the place of some of the men who have gone, and they are keeping nearly all the lines of experiment alive, so that not only is nothing being lost, but steady progress in the experiments is being made. The whole of the organisation is thus being kept in working order, and in readiness for full development to deal with the problems of the new situation, which will undoubtedly arise after the war.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.**The Anamalai Planters' Association.**

Minutes of an Extraordinary General Meeting of the Anamalai Planters' Association held at the Club on the 3rd January, 1917.

PRESENT.—Mr. J. Hatton Robinson (in the chair), Messrs. Simcock, Marsh, Congreve, Ireland Jones, Lloyd, and Sladden. Messrs. Carless and Biddell were represented by proxy.

The meeting was called at the request of the Chairman of the U. P. A. S. I., to pass a Resolution in support of and conformity with that of the South Travancore Planters' Association's resolution on the subjects of SHIPPING FREIGHTS.

The Meeting was unanimous in its decision that a strong resolution should be drawn up by the Council of the U. P. A. S. I., on the lines of the Chairman's letter of the 17th December last, which should cover "freights on all plantation produce," and, at the same time, it considered that the speediest way in which shipping freights could be reduced to a normal figure, was by urging upon the Home Government the absolute necessity of immediately bringing in a programme for the building of a number of Standardized Cargo Steamers.

The Meeting also considered that the Home Government should be asked to take immediate steps to have the present preposterously inflated freight rates reduced.

It was considered that a Resolution drawn up by the Council of the U. P. A. S. I., on something approaching the above lines, would lead to a speedier method of "getting something done" than for each separate affiliated Association to send in a separate resolution, and it was further suggested that all Mid-East Planting Associations should be asked to join in a united appeal to the Home Government for the Standardization of freights on all plantation products.

(Signed) J. HATTON ROBINSON,

Chairman.

CORN PRICES.

Statement showing the Average Price of British Corn, per quarter of 8 bushels Imperial Measure, as received from the Inspectors of Corn Returns in the week ended 4th November, 1916, and corresponding weeks of the seven previous years, pursuant to the Corn Returns Act, 1882:—

			Average Price.					
			Wheat.		Barley.		Oats.	
			s.	d.	s.	d.	s.	d.
Week ended 4th November, 1916 ...			66	7	56	2	34	0
Corresponding week in—								
1909	...	...	32	5	27	7	17	1
1910	...	...	29	11	25	4	15	11
1911	...	...	33	4	32	7	20	11
1912	...	...	33	1	31	11	19	11
1913	...	...	30	0	28	1	17	9
1914	...	...	38	8	28	6	23	7
1915	...	...	51	6	47	3	30	4

—The Board of Trade Journal.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Monthly statistics to 30th November.

	1916. Tons.	1916. Tons.
<i>East India—</i>		
Landed to 30th November	2,163	3,742
Delivered to 30th November	2,648	3,633
Stock on 30th November	901	1,566
<i>Coffee of all kinds—</i>		
Stock in U. K. on 30th November ...	37,620	31,210
Total European Imports to 30th November...	334,695	729,610
Total European Deliveries " " ...	310,865	805,825
Total European Stock on 30th November ...	229,940	205,355
World's Visible Supply on 30th November...	651,825*	524,600

*An increase of 29,590 tons compared with a decrease of 16,470 tons last year. This is largely accounted for by the stoppage of shipments to certain neutral countries.

Brazil receipts to 6th November :—

1916.	1915.	1914.	1913.
8,379,000	9,824,000	6,366,000	9,752,000

Messrs. T. H. Allan & Co.'s Weekly Report dated 13th December states that the moderate supplies of coffee suitable for home use continue to meet with a good demand at very firm prices and there is every reason to look for improvement in the values of these kinds. There have been no East Indian on offer, but East Africans have sold well. Public sales will be suspended from 19th December until the 4th January. Business "to arrive" remains quite dead. At present no one knows whether the Government control of shipping will mean cheaper freights or not; some new fact of this kind might stimulate business in crops.

Tea.

The following figures showing the export of Tea during the month of November are published by the Indian Tea Association.

<i>Sailings to Great Britain—</i>	1916.	1915.
From Calcutta in November	20,110,364	15,917,465
From Chittagong in November	2,609,579	6,207,503
Total from 1st April to 30th November ...	154,880,490	164,617,031
<i>Sailings to Australia and New Zealand—</i>		
In November	618,510	813,362
From 1st April to 30th November	3,751,766	6,820,320
<i>Sailings to America—</i>		
In November	968,792	2,315,288
From 1st April to 30th November	3,768,719	8,599,568
<i>Sailings to other places—</i>		
In November	4,571,197	5,687,731
From 1st April to 30th November	32,498,149	28,463,781
<i>Sailings from South Indian Ports—</i>		
In November	147,310	2,800,573
From 1st April to 30th November	12,009,578	15,778,741
<i>Total Sailings—</i>		
In November	29,025,752	33,942,022
From 1st April to 30th November	206,908,702	224,279,441

The exports of Tea from Ceylon from 1st January to 18th December were, Black, 187,093,413 lbs. Green, 3,662,317 lbs. and the corresponding figures for 1915 were, 194,081,848 lbs. and 4,752,906 lbs. respectively.

The following were the shipments from South Indian ports in November:—

			lbs.
From Cochin—			
To Asiatic ports	...	...	12,454
From Tuticorin—			
To Colombo	...	...	115,410
From Alleppey—			
To Colombo	...	...	3,975
From Calicut—			
To Bombay	...	...	4,768
To Kathiwar	...	...	2,270
To Colombo	...	...	8,433
			<u>15,471</u>

The following were the exports of Tea to Russia in November:—

			lbs.
To Petrograd	...	...	115,735
To Irkutsk	...	...	32,452
To Moscow	...	...	1,166,939
To Odessa	...	...	59,902
To Baku	...	...	21,235
To Tschelianbinsk	...	...	586,154
Total	...	...	<u>1,982,417</u>

Messrs. T. H. Allan and Co's Report quoted above states that there was a good demand for medium and fine kinds at steady prices, but lower grades were easier until this week when full to dearer prices were paid all round, i. e., the week ending 12th December.

Rubber.

Messrs. T. H. Allan and Co's Weekly Report states that buying continued augmented by a good deal of speculation until prices touched 3/5 both for smoked sheet and crepe. A slight reaction followed but prices only declined about 1d until 12th December when they went back to 3/1. and then to 2/10. They then recovered to 3/- $\frac{1}{2}$ and again went back to 2/10 $\frac{1}{2}$. On the 13th December the price was about 2/10 $\frac{1}{2}$.

R. D. A.

INDIAN LABOURERS IN BRITISH MALAYA.

HOW PROVISION WAS MADE FOR A GROWING INDUSTRY.

The problem of development in tropical countries is largely one of labour supply. This was apparent from the first in Far Eastern regions, so soon as rubber-planting became widespread, following upon the discovery of the rich possibilities of the industry. To prevent abuses, while at the same time providing for an ample supply of labour, the British Authorities in the Malay Peninsula formulated a scheme in co-operation with the planters and other employers of labour, under which the Straits Settlements, the Federated Malay States, and such employers in Johore, Kedah and Kelantan as wish to participate in its benefits, are able to maintain a steady inflow of immigrants from the teeming population of Southern India.

In 1907, the number of labourers employed on the Estates in Malaya was 74,871 of whom 49,647 were Tamils. In 1913 the number had increased to 282,354, of whom 162,732 were Tamils. Of the total labour force in that year, 201,207 were employed in the Federated Malay States alone.

The outbreak of war disturbed the flow of immigrants from India, and the total arrivals in 1914 fell to 51,217. Last year it is satisfactory to report, there was an increase of 24,106. The total of 75,323 was made up of 54,881 assisted immigrants (that is to say, free labourers imported at the expense of the Immigration Fund for work on Estates, mines and elsewhere.) and 20,442 other immigrants (traders, labourers, and others who paid their own passages). Of these over 43,000 were for the Federated Malay States, against 35,000 in 1914. The number of emigrants to Southern India, on the other hand, was 50,320. It is estimated that about 34,000 came from the F. M. S. so that there was an excess of arrivals over departures of about 19,000, as compared with an excess of departures over arrivals in 1914 of about 7,000. The percentage of females to male immigrants was 17.75.

All the Indian labour employed throughout the F.M.S. is free. Labourers are landed free of debt, and are at liberty to leave their employment at any time upon giving a month's notice. Further, no Indian immigrant can enter into any written contract to serve as a labourer.

Section 66 of the Labour Code provides that every employer of more than ten Indian labourers shall, within seven days of the engagement locally of any such labourers, make a return to the nearest Labour Office. The number of local engagements registered during the past year was 32,917. Although the work of registration is carried on in the several Labour Offices, the cost of preparing the registers is borne by the Indian Immigration Fund, and the prosecution of an employer cannot be undertaken except "on the complaint of any other employer." No case of prosecution at the instance of an employer is reported, although the returns rendered by employers of estates show that 58,848 Indian labourers were engaged locally, an excess of 25,931 over the number registered.

Returns of labourers show that the numbers employed in the four States of the Federation in the past three years were as follows:—

	1913.	1914.	1915.
Perak	67,660	61,691	65,483
Selangor	89,804	69,786	72,532
Negri Sembilan	27,442	26,326	28,252
Pahang	3,344	3,576	4,474
	<hr/> 188,250 <hr/>	<hr/> 161,379 <hr/>	<hr/> 170,741 <hr/>

In addition to these there were employed by Government Departments 26,697 in 1913; 21,860 in 1914, and 19,325 in 1915.

DESERTIONS.

The number of desertions of Indian labourers reported during the year amounted to 40,028, as compared with 39,921 in 1914.

Judging from utterances at the meetings of the various Planters' Associations in the Peninsula, and from the comments in the Press, it might be supposed that the proportion of desertions would be found to be much greater than in recent years. The figures vary but little from year to year; 28'45 per cent. were reported as leaving their employment without notice in 1913, 26'61 in 1914, and 29'05 in 1915. The year has been one of increased prosperity for employers in the F. M. S. and as such might have been supposed to have been accompanied by redoubled efforts on the part of the less scrupulous employers to acquire labour at the expense of their neighbours. The fact that there has been so small an increase in the proportion of reported desertions to the average number of labourers employed, in a year when the prices of tin and rubber have been rising more or less steadily, appears to be a cause for satisfaction, is the comment of Mr. J. R. O. Aldworth, Controller of Labour, F. M. S.

HINT TO RUBBER COMPANY DIRECTORS.

In my report for the year 1912, I wrote (says Mr. Aldworth) " Experience shows that most cases of trouble with the labour force arise through the inability of the management to communicate readily with the labourers. Further experience has confirmed that view, and it can almost be accepted that trouble with the labour force only occurs on estates in which the labourers are dependent upon an interpreter for laying their grievances before the management. The health also of an estate appears to a large degree to vary directly with the knowledge of Indian languages possessed by the Manager and his assistants. It is rarely found that a Superintendent who does not take the trouble to learn a language will take the pains to exercise that unremitting attention to the details of the mode of living of the labourers, which alone can guarantee fair health for the labour force upon an estate in a malarious neighbourhood. It is to be regretted that the Directors of rubber Companies and other responsible persons do not take more interest in the acquirement of Indian languages by their Estate Superintendents and Assistants."

RISE IN WAGES AND SAVINGS.

There has been no general change in the rate of wages paid to Indian labourers, but there are signs of a tendency to demand an increased wage, due probably to the gradually rising cost of imported articles, as much as to the higher price of rubber: for the Indian labourer in the Malay Peninsula spends a good deal on luxuries. Motor-bus rides, stout and numerous cheap manufactured articles, undreamt-of in his Indian home are items of his monthly budget in the F. M. S.

The average daily wage of an Indian labourer on Perak estates is 40 cents for men and 30 cents for women. In Negri Sembilan, for weeding, men 30 to 35 cents, women 25 to 30 cents; for tapping, men 35 to 40 cents. On a large number of estates there is a sliding scale, regulated by the number of days worked in the month.

That the Indians in the Malay States do not spend all their surplus money on luxuries is shown by the amount standing to their credit in the Post Office Savings Banks. At the end of 1915, the amount was £40,900, an increase of £2,828 in 1914, while the number of depositors had increased by 557. The number of money orders issued by the Postal Department for payment in India was 46,866, the amount so remitted being Rs.3,531,793.

HEALTH ON THE ESTATES.

The health on Estates generally has shown an improvement greater than could have been anticipated by the most sanguine. Negri Sembilan has still the worst record of any State, but there the advance has been most encouraging. The general improvement for the past five years on the estates of the F. M. S., regarded as a whole, is illustrated by the following statistics of estate labourers and the number of deaths:—

			Labourers.	Deaths.
1911	...	...	110,000	7,162
1912	...	...	122,000	5,014
1913	...	...	133,000	4,057
1914	...	...	128,500	3,695
1915	...	...	120,190	2,519

From the remarks by the Senior Health Officer, it is apparent that much of the sickness amongst the Indian labourers, who compare badly in this respect with the Chinese, is due to their own careless habits and bad feeding.

GENERAL.

There is a home for decrepit Indians in Kuala Lumpur; special cases of distress are relieved from the Indian Immigration Fund; and decrepit and destitute Indians are repatriated through the Labour Offices. Schools are maintained on many Estates for the education of Tamil children, and in every way the Government supervises the treatment of the Tamil labourer and seeks to promote his welfare. Most of the estates have their own hospitals and where these have not been provided arrangements are made for the treatment of sick labourers either in local hospitals set up by the Government, or in the hospitals of neighbouring estates.—*The India-Rubber Journal*.

LABOUR DEPARTMENT.

By notification contained in G. O. No. 432, dated 18th December, 1916, Government of Madras, Home Department (Miscellaneous) Mr. Hal Waddington, Coimbatore, is authorized to witness the execution of Labour Contracts made under Act I of 1903 (the Madras Planters' Labour Act).

It is notified in G. O. No. 445, dated 20th December, 1916 that the following gentlemen are similarly authorized:—

1. Mr. Christopher Charles Kent, Mysore.
2. Mr. Frank West Winterbotham, Mangalore.
3. Mr. William George Fothergill Walters, Chingleput.

(Signed) AYLMER Ff. MARTIN,
Director.

FACTORIES.

With regard to the general construction of a factory there is little to be said so long as there are sufficient doors for ingress and egress and enough windows to give plenty of light, a fault which I have seen in many old factories which are still in use. The most important point in my opinion in building a factory is to choose your site and build a permanent building either of iron or brick. So many estates have ramshackle buildings built of weather boarding with an attap roof and possibly no ceiling so that all the dirt which collects on the attap, will on a windy day fall into the pans.

It seems peculiar that so many managers when building their factories do not seem to allow for all the other acreages not in bearing; they of course allow for a certain amount but when the whole estate comes into bearing they are suddenly confronted with the fact that the factory is too small and have to go to a large expense in increasing the size, whereas if in the first place they had made the building larger, the extra cost would have been comparatively little, I think I know the reason for this idiosyncrasy and it is due to the fact that they do not like cutting out more trees for the original site than they can possibly help, or it may be of course that they do not judge correctly their ultimate output and the space required to cope with it.

Light and air are the two most important things to remember. In the past factories seem to have been built with the sole desire of excluding as much light and air as possible, but this idea is erroneous. Jack roofs are most important to ensure proper ventilation. There should be at least two doors to a factory and a verandah at each end for the reception of the latex as well as down the sides to enable the coolies to keep their latex out of the rain and themselves dry. The floor should be of well laid concrete sloping gradually from the middle towards the sides with drains completely round and the outlet drain to be taken some distance from the building and not stop a few feet away, causing the water to flow into the earth and produce bad smells. The sides of the building should be raised a few inches from the floor so that the factory can be thoroughly washed out daily without any fear of leaving pools of water about. On one side of the building the machines should be placed running down the side and parallel to it and on the opposite side the racks for the pans, the middle of the building should be free from encumbrances. Zinc lined tables in front of the machines and also near the racks, are recommended, and sheets should not be thrown on the floor either before or after rolling as is so often the case no matter how clean the floor may be or even if the floor is composed of white glazed tiles. If an ordinary table is used the wood soon becomes rotten from acid, dirty, slimy, and hard to clean, and altogether undesirable, whereas if the table is neatly covered with zinc and nailed on with copper nails at the sides, care being taken that the zinc fits perfectly and is not

billowy and that no nails are on the top surface, there is a table which is easily cleaned, does not become smelly or slimy and lasts a considerable time.

The latex jars should be placed at each end under the verandah and the coolies can pass in line in front of the verandah from the side verandahs and pour in their latex; there can also be a table at one end for the receiving of the scrap, on which a weighing machine is placed with a box at the side—the scrap can then be weighed per man as many times a week as desirable. Another very good method for receiving scrap is to have small pigeon holes against the outside wall with a number on each. As each cooly has his number, he can place his scrap in the pigeon hole corresponding with his number and should any cooly bring in a less amount of scrap than he reasonably should be expected to, it can be easily seen on inspecting the pigeon holes and the scrap can then be taken out and weighed. A book should be kept with each coolie's name and number and although it is not necessary to enter the weight of each man's scrap every day in the book, it should be done at any rate twice a week, but the total weight of each gang should be entered daily.

The engines to run the machine, and in any fair-sized factory there should be always two engines in case of a breakdown, should be placed outside the factory in a shed of their own.

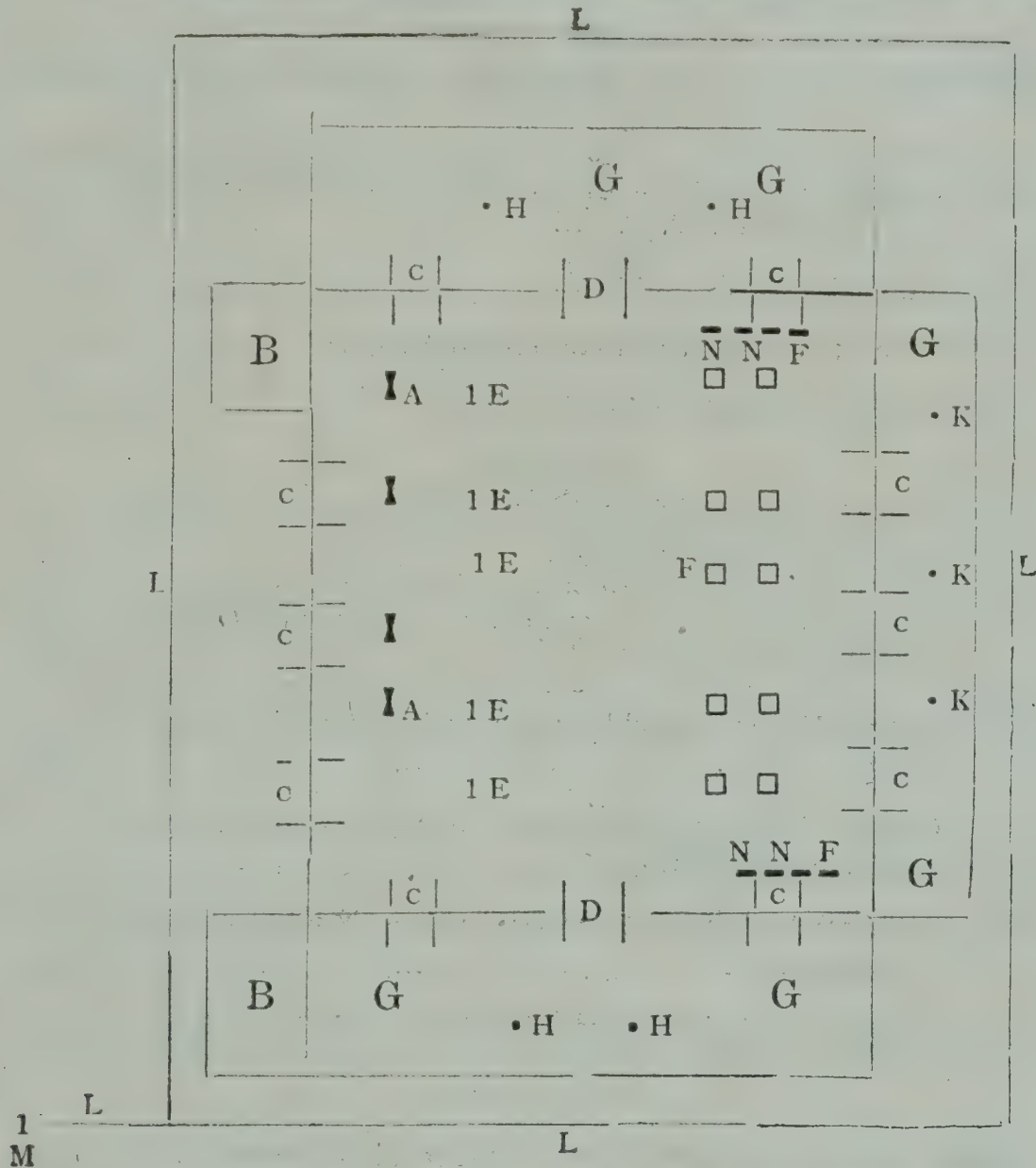
Windows should be covered with expanded metal as well as having shutters.

It is not advisable to use part of the factory as a drying shed, the two cannot be combined, or if they are neither are really satisfactory.

Tanks with water can be kept under the side verandahs for the coolies to wash their buckets and the buckets can be hung up here on pegs each on its own number which does away with coolies taking their buckets to the lines and probably using them for cooking in. On one estate I could not understand why certain coolies always brought in their latex in a half coagulated state. I thought of everything, carefully inspected the cups and buckets which were quite clean, and all to no purpose. After much worrying I found one morning at muster that some of the coolies had a very small amount of water in the bottom of their buckets as if they had water in them and had thrown it away, leaving as is usual a very small amount round the sides and bottom. On questioning the men they said they kept their rice water in the buckets to get cool, pouring it into some other jar when it was cool, and the small amount left in the buckets was the cause of the half coagulated latex.

Before the outlet drain finishes there should be placed in a slot a piece of iron with holes to act as a sieve, this will collect all the waste rubber from the factory which gets in the drain and would otherwise be lost.

The water tank is of course generally on its own stand outside the building or it can be inside, and the engine lifts the water to the tank from a convenient well or pond. When choosing the site the question of an adequate supply of water is one of the first considerations.



- A A—Machines.
- B B—Engines.
- C C—Windows.
- D D—Doors.
- E E—Tables.
- F F—Racks for pans.
- G G—Verandahs.
- H H—Jars for latex.
- K K—Jars for washing buckets.
- L L—Drain.
- M—Sieve in outlet drain.
- N N—Racks for dripping newly rolled sheet.

F. M. RILEY.

SCIENTIFIC DEPARTMENT, U P. A. S. I.

Scale of Fees for analysis in the Bangalore Laboratory.

A.—SOILS.

	Rs.
1. Complete Chemical Analysis, including the available Potash and Phosphoric Acid ... ..	...40
2. Mechanical Analysis ... ..	...10
3. Complete Chemical and Mechanical Analysis ... ..	...50
4. Calcium carbonate and oxide content ... ..	...10

B.—FERTILISERS.

1. Potash in Potassic Fertilisers ... ..	... 8
2. Phosphoric acid, total and citrate soluble, in Phosphatic Fertilisers ... ..	... 8
3. Organic Matter, Insoluble Matter, and Nitrogen in Poonacs, &c. ... ..	... 6
4. Organic Matter, Insoluble Matter, Nitrogen, and Phosphoric acid in Bones, Fish, &c. ... ..	... 8
5. Complete Analysis of Fertilisers such as Composts, Cattle manures, &c. ... ..	...20
6. Complete Analysis of Lime, Limestones, and Slaked Lime ... ..	...10

Half the above rates will be charged to all Members of District Planters' Associations.

For methods of taking samples of Soils and Fertilisers and the quantities to send for analysis see *Planters' Chronicle* Volume X. pages 207 and 216.

All samples for analysis should be sent plainly labelled to "The Planting Expert, 25, South Parade, Bangalore," and should be accompanied by a covering letter giving full information about the sample and the analysis desired according to the above table. Fees should be remitted to "The Secretary of the United Planters' Association of South India, 25, South Parade, Bangalore."

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 3.]

JANUARY 20, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, who is on tour in the Shevaroyes, will not return to Headquarters until the 27th instant.

We publish the Proceedings of the third quarterly meeting of the South Mysore Planters' Association. Mr. Rutherford's report on the selected site for the Experimental Coffee Station is the point of general interest.

The site is touched on by the Deputy Director of Agriculture in his report of his tour in Coorg, and he approves of it. That portion dealing with Collar Pruning of old Coffee will be read with interest by Coffee Planters.

A very valuable article on Labour Economy on Rubber Estates is contributed by J. R. V., which will receive the attention it deserves. The kernel of the article lies in the first para. on page 37. It points a moral and that is that there must be combination between the Rubber growing districts and with District Labour Rules.

The Manager of the Mercantile Bank of India, Ltd., has written to ask us to draw special attention to the fact "that at present we allow interest at the rate of 5% per annum on deposits fixed for *six months*."

In our correspondence column will be found a letter in connection with the New War Loan and a letter from Mr. Foster asking for information about Ceara Rubber in South India.

We should feel so much obliged if any of our readers can supply us with the IVth Volume of the *Planters' Chronicle*.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	57,137	8	2
Mr. J. J. Murphy	...	...	100	0	0
Mr. Stephen Bayly	...	...	10	0	0
Mr. W. A. Lee	...	...	40	0	0
Total...			57,287	8	2

DISTRICT PLANTERS' ASSOCIATIONS

South Mysore Planters' Association.

Proceedings of the Third Quarterly Meeting held at the Travellers' Bungalow, Mudigere, 15th December, 1916.

PRESENT.—C. Lake (President), C. J. Hayward (Vice-President), St. John Hunt (Honorary Secretary). A. Thomson, F. M. Hamilton, R. Hunt, W. E. Tweedie, M. J. Woodbridge.

Minutes of last meeting held on 21st September, were passed.

DASSERA DELEGATES' REPORT.—Mr. C. J. Hayward, the Delegate read his report as follows:—

Gentlemen,—As your representative at the Dassera last October, I was instructed to represent the following matter:—

- i. Land Tenure after the original holding of thirty years has expired.
- ii. Madras Planters' Labour Act in Mysore.
- iii. Payment of taxes by cheque.
- iv. Roads and Communications.
- v. Assistant Scientific Department.

I had an interview with the Dewan and placed before him the following in writing:—

COFFEE-LAND ASSESSMENT.

It is requested that the following may be considered:—

The 30 years having expired, during which temporary tenure of this land was held at Re.1 per acre, it is requested that if desired this land may be transferred to permanent tenure at an assessment of Rs.1/8 per acre and not continued on temporary tenure at Re.1 per acre. The contract for 30 years having expired under which this land was held and no fresh contract having been made an unsatisfactory condition now exists and an early consideration and decision of this matter is requested.

In replying to this the Dewan at first said a decision had been given, and the result published but on calling his Secretary in, it was found that the decision had not been published, our Honorary Secretary may have received the decision by now, the Dewan led me to believe the decision was not favourable, as I understood the only way to obtain permanent tenure of this land was by paying back tax for the past 30 years. I pointed out to the Dewan the unfairness of this on a man who had perhaps only held the land for 4 or 5 years out of the 30 but he said no other decision could be arrived at and I understood him to say that the original decision to allow land to be held at permanent tenure was wrong.

PAYMENT OF TAXES BY CHEQUE.—I again placed my request in writing:—

It is requested that this may be again granted, for a short time this was allowed but appeared to cause a great deal of trouble and delay but the Mysore Bank having been established this trouble and delay seems avoidable.

The Dewan replied that he thought this might be sanctioned but asked that these two requests might be sent in writing to the Secretary, Revenue Department.

MADRAS PLANTERS' LABOUR ACT IN MYSORE.—I informed the Dewan that this Association was not in favour of the introduction of this Act into Mysore and as this Association in October 1913 requested the introduction of some such Act, I thought some explanation for our adverse decision necessary and pointed out that we only desired the Act in 1913 provided the reciprocity in the service of warrants between Mysore and British Territory was included in it, besides which many of us are now subscribing to an expensive Labour Department which will in time, we hope, do away with the necessity of appealing to the Criminal Courts. I could gather very little information on the subject, the Dewan only asking if this Association's decision had been sent in to which I replied in the affirmative.

ASSISTANT SCIENTIFIC DEPARTMENT.—Unfortunately Dr. Coleman was not present at the Dassera and as I had no information on what lines the negotiations between the Council of Mysore Associations and the Mysore Government were proceeding, I did not broach this subject but I wrote to Dr. Coleman on my return.

ROADS AND COMMUNICATIONS.—I had an interview with the Chief Engineer and placed the following in writing before him :—

Banavar-Belur-Mudigere-Road.

Length in Mudigere Sub-Division.

Milestones $\frac{2}{40}$ to $\frac{5}{50}$ = $10\frac{1}{2}$ Miles.

Ghaut section of this $\frac{2}{40}$ to 43 = $3\frac{7}{8}$ Miles.

Abstract for efficiently maintaining this section of $3\frac{7}{8}$ miles.

i. Ordinary maintenance	... 292
ii. Consolidating recoats of metal	... 120
iii. Repairs to bridges and drains	... 15
iv. Collection of metal	... 721

Rs... 1,148

Cost per mile Rs. 287.

Rs. 275 at least are required for these first four miles and Rs. 250 for remaining $6\frac{1}{2}$ miles.

This most important road and the main outlet to the coast from this and the neighbouring Districts commands a vast amount of traffic, hence an increased grant is absolutely necessary as the road has fallen into a deplorable condition.

BELUR SUB-DIVISION.—Milestones 36 to 39 = 3 miles. This stretch is in a most deplorable condition and has only received patchwork for some years and requires an increased grant and special attention to put it in order again.

ARNAMAHAL-MUDIGERE ROAD.—From Whaddonhulla to Arnamahal is in a most infamous condition and should receive special attention.

HASSAN-BANGALORE ROAD via CHENRAYPATAM AND KUNIGAL.—Between milestones 67—68 water flows across the road and during heavy rains the crossing is dangerous, could not this be altered by a culvert of some sort. I was assured these matters would be looked into. I conclude by thanking you for the honour you did me in electing me as your representative.

A vote of thanks was accorded Mr. Hayward,

Whilst on the subject of Title Deeds the following order was received from Government :—

*Proceedings of the Government of His Highness the Maharaja
of Mysore.*

Read—

Letter dated the 14th January, 1912 from the Honorary Secretary to the South Mysore Planters' Association submitting for the consideration and orders of Government certain representations in connection with the revision of the settlement of coffee lands held on temporary tenure and suggesting the terms on which the temporary tenure may be converted into permanent.

2. Extract from the address presented to the Dewan by Mr. W. L. Crawford, President of the said Association, at the Representative Assembly meeting held in 1912 concerning the same subject.

3. Letter dated the 17th October, 1914 from the same gentleman requesting the grant of fresh title-deeds for coffee lands in holding for conversion into permanent tenure without additional payment.

Order—No. R. 4693—703/L. R. 330—11—4.

Dated Bangalore, the 18th November, 1916.

The acreage settlement of coffee lands effected under Government order No. 3662—70 dated the 2nd August 1881 offered to the planters the option of paying either a fixed permanent acreage assessment of Rs. 1-8-0 on their estates, or holding them under a temporary tenure for the usual term of 30 years on an assessment of 1 rupee an acre subject to revision at the end of that period.

2. Subsequently in Government order No. (Camp) 1125-8 dated the 22nd September 1885, the holders of lands settled on temporary tenure were permitted to have the same converted into permanent tenure on payment of the difference between the two rates of assessment, viz.,—8 annas an acre, from the date of the original settlement (1881-82), to the date of their application. Partial remission of the difference in specially hard cases was also provided for.

3. The term of the original settlement of holdings on the temporary tenure, having expired, the South Mysore Planters' Association have requested that the terms on which the tenure of these lands would be renewed may be announced, and the levy of the arrears of assessment of previous years under the Government order of 22nd September, 1885, waived in the case of those holders who wish to have the tenure of their lands converted from temporary into permanent.

4. On a careful consideration of the subject in consultation with the Heads of the Survey and the Revenue Departments the Government have arrived at the conclusion that it is inexpedient to grant fresh lands on permanent tenure hereafter, and that the conversion of the existing temporary tenures into permanent, should be subject strictly to the terms of the Government order of the 22nd September 1885 referred to in paragraph 2 above. The existing concessions attached to permanent tenures will hold good in all respects.

M. S. RAMACHENDRA RAO,

*for Offg. Secretary to Government,
Revenue Department.*

To—The Revenue Commissioner in Mysore.

The Superintendent of Revenue Survey and Settlement in Mysore.

The Deputy Commissioners of Districts.

The President of the South Mysore Planters' Association.

With reference to the above "it was resolved that the question of conversion of Temporary Tenure into permanent after the first thirty years are complete, be brought up at the next U. P. A. S. I. meeting, with the object of referring the matter to the Madras Government."

ASSISTANT SCIENTIFIC OFFICER.—Mr. Frattini still being in bad health, this Association suggests, that the Council of Mysore Planters' Associations grant him 3 months leave from January 6th, 1917, and pay his passage money Home. Further, that prior to Mr. Frattini's departure, the Council be asked, to take over the figures and details of all schemes now in progress, or already completed by Mr. Frattini.

MORE EFFECTIVE CONTROL OF BAZAARS.—On market or "Shandy" days, the sellers of produce are permitted to do so as they choose, false seers and measures have been seized by Maistries of Estates. The Police who should watch such swindling are most indifferent and do not appear to mind what goes on. Gambling of various types is more prevalent every week and no notice whatever is taken of same by the authorities. In view of the above it was proposed by Mr. C. J. Hayward and seconded by Mr. St. John Hunt that the Deputy Commissioners of the Hassan and Kadur Districts be asked to take *strong* measures to prevent the use of false seers and weights and also that gambling be put a stop to in these bazaars.

STEAMER FREIGHTS.—With regard to the abnormally high and prohibitive rates now ruling the following resolution was moved:—"Resolved that this Association views with alarm the high rate of Freights at present ruling and suggests that the U. P. A. take up the matter."

CORRESPONDENCE.—Mr. E. W. Rutherford's Report on the land selected for Coffee Experimental Station was read to the meeting and is now published. The site was agreed to.

A vote of thanks was accorded Mr. Rutherford.

REPORT BY DELEGATE OF S. M. P. A.

COFFEE EXPERIMENTAL STATION.—As requested at your last Meeting I visited on 21st November the land offered for above purpose in Coorg.

The Honorary Secretary of the Coorg Association, Mr. P. G. Tipping kindly putting me up, and going over the land with me, and giving me all particulars re. same; which he was in a good position to do, as it lies adjacent to the Estates worked by him.

As accessibility of land at all times of year, given that it was otherwise satisfactory, was essential to scheme, there was no need to visit the other pieces of land kindly offered, as in the ideas of Mr. Tipping, these could not show the same conveniences, as land he was showing me.

The area offered is from 15 to 20 acres, situated on the "Mysore to Sidapur" Government Road, about 2 Miles from the latter village. It is a piece of one of the Coffee Estates which run down to the Government Road at this place, so on three sides is surrounded by fields of Coffee, the only demarcation line from them being the Estate roads that run round area

At the top end is an open space in Coffee, on which stands the foundations of an old Bungalow, which would be very convenient for the location of an Inspection Bungalow to be built on. At the lower end is the Government Road, with a strip of land between the Coffee and its side, on which land there is ample room for the building of Lines, Garage, and a Nursery. Water being available just across the Road, where there is another Coffee Estate, so you can judge the area in question is right in the heart of Coffee.

The Coffee on area is of a good class, even, and of a fair age; looks very healthy as a whole, having been treated in same way as the Estate of which it forms a portion. The Soil is good, and area is shaded with trees of a good class. The Rainfall of Area should be somewhere about 65 to 70 inches.

The whole faces North.

The opinion I formed re Land was; that it is eminently suited for the purpose, and being so situated, that anyone could easily go and see the results of any Experiments that are being carried out, at any time of year. I may add that the only thing I could see against area was that it didn't show any signs of suffering from "Leaf Rot" or "Green Bug," so to experiment with these pests they would have to be introduced, or else await till they came of themselves. I saw signs however of "Stump Rot," and "Mealy Bug." Leaf disease was practically absent, and was mostly on trees, the roots of which I judged were attacked with "Mealy Bug." I may add that this latter Pest, *i.e.*, "Mealy bug," seems to be very prevalent in Coorg, and though we have so far heard nothing much about it in S. Mysore, still from what I saw I should not be surprised to find that we also owe a lot of our bad spots to it, and that even for this alone the work of a Scientist is justified. In conclusion I think the thanks of your Association is due to the Honorary Secretary of the Coorg Planters' Association, for the trouble he must have had in obtaining the offer of land for Station, and also to the owners Messrs. Matheson & Co. of same for placing area at the disposal of the Coffee Planters and for the courtesy that was shown by Mr. P. G. Tipping, the Hony. Secretary of the C. A. to your delegate, myself. Thanks are also due to others who also made offers, as it is no small thing to pass over a piece of land with good going Coffee on it for the use of others for a period of years.

(Signed) E. W. RUTHERFORD.

25th November, 1916.

The Honorary Secretary was instructed to write to the Secretary, Revenue Department, to sanction the payment of taxes by cheque.

Also to write to the Dewan re. the cause-way between 67th and 68th miles on the Hassan-Bangalore Road. *via.* Chenraypatam and Kunigal with a view to some sort of bridge being erected.

INDIAN INDUSTRIAL COMMISSION.—The questions appertaining thereto were gone into and those affecting the Coffee Industry in Mysore were answered and sent to the Secretary, U. P. A. S. I, for needful action.

With a vote of thanks to the Chair the meeting terminated.

(Signed) ST. JOHN HUNT,

Honorary Secretary.

THE DEPUTY DIRECTOR'S TOUR IN COORG.

Leaving Bangalore on the 10th December and returning to headquarters on 24th December I made a tour in Coorg, visiting the following estates, Fairfield, Sidapur, Dubarri, Canon Cadu, Closeburn, Jumboor, Hallery, and Koorghully, and attended the District Association meeting held at Pollibetta on 14th December.

The Coffee in the District as a whole is looking remarkably well, even semi-abandoned areas, which looked so bad two years ago, have recovered and are looking remarkably healthy. In most places there is a good crop on the old Coffee, though the late rains did not suit young coffee, but it is ripening up very late. A noticeable feature everywhere is that the bunches are being held right up to the end of the branches, and little drying off or dying back is to be seen. This is in all probability due to the late autumn rains which were experienced and goes to show that the dying back of branches so often experienced in past years is a physiological effect and not due to any specific disease, being caused by lack of moisture in the soil when the crop is ripening.

Site of the proposed Coffee Experiment Station.

I inspected the site chosen for the proposed Experiment Station under the new scheme of reorganisation of the Scientific Department. This is situated by the side of the Government road not far from Sidapur and appears to me to be eminently suitable. It contains Coffee of all kinds and affords excellent facilities for experimental work; spare land is available for the necessary buildings and the foundations of a bungalow exist. It will be easily accessible for visitors, and in fact it would be difficult to choose a better site. Unfortunately there is little prospect of making an early start with work on the Station as Government sanction to incur expenditure is held up on account of the War. The matter is still under consideration, but it appears as if we must possess our souls in patience for another year. This is naturally a disappointment both to Coffee planters and the Department, but, as our gallant Allies say—" *C'est la guerre.*"

Root Diseases.

It appears to me that trouble due to Root Diseases so prevalent on many estates some years ago are getting markedly less. They still exist, but are not of such frequent occurrence and are less apparent than they used to be. This I attribute to the fact that Root Diseased patches have been taken in hand systematically; stumps of dead and dying shade trees have been isolated by trenches kept open till the stumps rot away, the dying Coffee trees attacked by the fungus have been uprooted and burned, and the soil has been dug and heavily limed, and then replanted. The systematic and continuous adoption of this plan has had good effects and should be continued.

Leucaena glauca shade.

On one estate at least a small leguminous tree, *Leucaena glauca*, has been grown as a supplementary shade for many years, but on this occasion I inspected a new clearing where a large proportion of the young shade consisted of this tree, and I was very favourably impressed by it. When grown from the beginning of the clearing, and not overshadowed by existing trees of other kinds, it forms a nice spreading umbrella-like light shade. The tree produces fruit prolifically and will stand lopping, and, being leguminous, the loppings have a considerable manurial value. The young seedlings which grow from the seed abundantly shed forth a green dressing in themselves which can be weeded up and buried.

It is of interest to note in this connection that from an article published in the *Philippine Agricultural Review* by Mr. J. P. Wester on the subject of the Coffee industry in Java it appears that in that country *Leucaena glauca* is used almost exclusively for shade, and the author speaks of it as being one of the most interesting features connected with Coffee in Java.

Collar pruning of old Coffee.

Some years ago I described in the *Planters' Chronicle* a method of collar pruning to resuscitate old Coffee. This method has now passed the experimental stage and I had the pleasure of inspecting a considerable area of Coffee which has been treated in this way, seeing it in all stages from that which was cut down four years ago to that done in the current agricultural year.

When Coffee reaches the stage of having grown into large unwieldy bushes, and still more when it has lost primaries from disease, borer, old age, or neglect, or a combination of these, while at the same time the shade is old and big, nothing but drastic methods will bring it back into shape and profitable bearing.

The method adopted on the estate in point is briefly to collar prune the trees *at ground level or just below it* having previously let the bushes run up into suckers so as to force as big a crop out of them as possible; to remove all the old shade entirely, rooting out undesirable trees dragging them out on to the roads and burning them. The land is then dug into big clods and a few of these piled up over each Coffee stump. The litter and loppings are spread over the land and a quick fire run over it. The field is then limed and the clods broken down and the earth is cleared away from each stump so that it stands in a wide, shallow, basin-like hollow. New shade is then planted.

This method has proved a great and undoubted success. The stumps sucker readily, some of them at once and others at the end of the year after the monsoons, and a few after a year or more,

Several suckers are allowed to grow and finally these are reduced to the two strongest (to allow for possible Borer losses) or to one. In the second year a small crop is taken and in three to four years time a field of new vigorous Coffee is obtained which will bear heavily and is better than any system of replanting would produce.

The object of cutting the tree down at the ground level is to get suckers as low down as possible; if trees are cut high up they often do not throw out suckers at all, or suckers are produced which are easily broken off. Moreover there is not a clean run of sap in this case, and the vigour of the new tree is reduced. Again by getting suckers low down a new root system is produced. The earth is at first kept away from the collar or Mealy Bug is apt to attack the base of the sucker near the ground, and children are employed to keep the collars clean. After the suckers are established and thinned the hollows are given a basket of cattle manure and filled up. This induces a growth of roots at the base of the sucker as can be easily seen by scraping away the earth round plants which have been treated in this way some time ago, and not only is a new top produced but a new root system also.

The benefit of the treatment to the soil itself is marked and is evidenced by the heavy crop of soft weed which is at once obtained, weed which is used as a mulch in the dry weather. This is probably due to several factors such as the removal of old shade, and its roots, cultivation, aeration, and lime, but also I expect it is largely due to the partial sterilisation of the soil by the fire which not only must kill a large number of injurious insects and their eggs which feed on roots, such as Mealy Bug and Cockchafer grubs, but also benefits the micro-flora of the soil.

The method is eminently successful and I would strongly advise its trial and adoption on other estates possessing patches of moribund Coffee.

The fact that all the collar pruned trees do not at one and the same time throw suckers is remarkable, but need cause no anxiety. Practically all will do so in time though this may take a year or more, and the late suckers soon catch up the earlier ones and produce a level stand of bushes. The actual loss of bushes is small, leaving few vacancies to be supplied. Supplies are easily grown in what is practically a new clearing and good basket plants, only the best should be used for the purpose. It is possible that if the stumps which have failed to throw a sucker at the end of the year are notched it would hasten the process.

The final result is a field of Coffee giving a normal yield of crop instead of one which is always below the normal yield and often undoubtedly run at a loss were a careful profit and loss account kept of it. The cost of the method is no greater than that of the normal upkeep per acre of Coffee since a saving in pruning and picking charges is to be set against the work. The only loss is that of a crop for two years and this is compensated for by the increase of crop in subsequent years.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

(To be continued.)

LABOUR ECONOMY ON RUBBER ESTATES.

Industrial America has rendered a great service to mankind by the Scientific study of the economy of labour in all industrial activities, and at the same time maintaining or increasing the output of labour. This latter has been done in a variety of ways, but those most widely known are the substitution of machinery for human labour, and the specialization of labour.

In this connection, owing to the formation of the land in South India, very little can be done by means of machinery, on Rubber Estates, but the specialization of labour has had to be resorted to because the tapping of a rubber tree requires quite a considerable amount of skill, and therefore we find that certain coolies are trained to be tappers, and do nothing else.

Now, if tapping was an operation that could be conducted during all the working hours of the day there would be little cause to complain of certain coolies being trained for tapping and used for tapping only.

Unfortunately the rubber tree shews a distinct disinclination to yield the maximum amount of latex after 9 A.M. and so tapping usually ceases at about that hour. The collection, straining and coagulation of latex takes from an hour to 2 hours, and at about eleven o'clock the cooly is free.

On most estates the coolies are given from two to two and a half hours in which to cook and eat their food, and they turn out to work again at about one or one thirty P. M. to collect the scraps of latex which have coagulated on the tapping cuts and in the collecting cups. This is the case on those estates where the tapping is done by task work. On some estates, however, tapping is done on contract and in this event the procedure is somewhat different, because the contract cooly usually collects his scrap rubber in the morning as he taps each tree. For him therefore, there is no necessity to work after he has strained and coagulated his latex.

In both of these systems there would seem to be a great waste of available paid labour and a waste which could easily be avoided if the tappers were to be mustered at one to one thirty P. M. and detailed off to weeding and manuring for women and boys, and heavier work such as roading, draining, trenching, and forking, etc., for the men.

To this suggestion there may possibly be objection raised such as "will not crop diminish?" and "will not this work increase recruiting" "difficulties?"

The most effective reply to the first objection is that if the system of collecting scrap in the mornings diminishes crop, would not these Estates that tap on contract have discovered this and have insisted upon afternoon scrap collection? They would most certainly have done so, and the reason why they have not, is because crop does not diminish. It is also a moot point whether, in the case of alternate day tapping, the retention of scrap on the tapping cuts is not good, in preventing the tapping surface from drying back too quickly, and thereby allowing thinner paring to be done.

To the second objection it can be urged with justice, that work on a rubber Estate is usually much sought after and it is doubtful whether rubber Estate managers, when an Estate is in bearing, have anything like the difficulty to obtain labour that Tea and Coffee Estates experience, unless, of course, the Estate is so unhealthy as to make it unpopular with the labour.

It would seem therefore that on those Estates where advantage is not taken of the opportunity to utilise the three hours of the afternoon of the coolies' working day, that the cost of tapping is approximately one-third higher than it need be.

It is probable that tapping costs alone, on an Estate producing 300 lbs. of dry rubber per acre per annum, average from 15 to 18 cents of a rupee per lb. of dry rubber. A saving of 5 to 6 cents per lb.—for practical purposes, one anna—could therefore be made. That this comes to a big total on an Estate producing 200,000 to 300,000 lbs. per annum, can easily be seen by a very simple sum in arithmetic,—a total perhaps sufficient to pay for all the salaries of the European and the higher native staff.

The question is certainly worth consideration for many reasons. It is admittedly more difficult in these days of the expansion of the Planting industry,—both Tea and Rubber,—to obtain sufficient labour for the efficient working and upkeep of Estates. With the system suggested above, only two-thirds of the present labour force would be necessary, but at the same time the object mentioned in the first paragraph, the maintenance or the increase of the output of the labour, will have been achieved, and with a corresponding decrease in cost of production.

With rubber prices such as they are, and have been, the stringent economy necessary to be practised in most industries, has not been felt by the richer and more prosperous rubber Companies, but, as according to the Marxian maxim, prices of commodities have a tendency to fluctuate near the cost of production, a time will come when every South India rubber Planter will realise that, only by utilising every pound of labour power he pays for, can he produce cheaper than his Ceylon or Straits neighbours, and at the same time make a "living profit."

J. R. V.

BONES FOR MANURE.

Bones, which when properly treated form a valuable fertiliser, may be readily reduced to powder without the aid of a crushing-mill. A simple plan is to pack the bones, layer by layer, with fresh wood ashes in a barrel, and keep the mixture moistened for some months. A quicker method is to boil the bones in an iron or copper boiler with strong caustic lye. The proportion of bones and lye to be used, is, roughly, 15 parts by weight of bones to 5 lb. by weight of caustic soda, or 7 parts by weight of caustic potash dissolved in 15 parts by weight of water. The boiling should be done for two or three hours. But even without boiling, the bones will become disintegrated by being simply kept in the caustic liquor for about a week. Another method of softening bones is by mixing them in heaps with quicklime and loam. A layer of loam 4 inches deep is first spread, and on this is placed a layer of bones 6 inches deep, and above this a layer of quicklime 3 inches deep. The layer of loam, bones, and quicklime are repeated till the heap reaches a convenient height, when it is covered all over with a thick layer of earth. Holes are then bored in the heap from the top, and water poured down them to slake the lime. This mass will become hot, and remain so for two or three months, after which the bones will become friable, and the whole heap may then be mixed up and spread as manure on the land.—*Queensland Agricultural Journal*.

CORRESPONDENCE.

Murgaddi Khan,
Sallebile P. O., Kadur District,
Mysore Province,
South India,
12—1—17.

THE EDITOR,

Planters' Chronicle.

Ceara Rubber.

Dear Sir,—We have all been led to understand that there are thousands of acres in S. India planted with Ceara. It would be most interesting if some of the managers of Ceara Estates would publish in the *Chronicle* their experience of tapping this variety of rubber.

Yours faithfully,

R. G. FOSTER.

The Mercantile Bank of India, Ltd.,
Madras, 15th January, 1917.

THE MANAGER,

The Planters' Chronicle,

Bangalore.

New War Loan.

Dear Sir,—For favour of publication we have to advise that this Bank will receive subscriptions for the New War Loan and remit same at the best current rate. The Bank is also prepared to hold the stock in London and collect dividends free of commission. Holders of stock who are not ordinarily resident in the United Kingdom will receive their dividends free of income tax.

Yours faithfully,

R. D. YOUNG,

Manager.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 4.]

JANUARY 27, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, continues the report of his tour in Coorg dealing with the improvement of Coffee varieties and giving an account of the excellent work done in Hybridization by Mr. Jackson of the Dubarri Estate over many years. He concludes with a note on the spraying of coffee for Fungoid Diseases, which resolves itself into one of practicability.

We publish the proceedings of a Quarterly General Meeting of the Shevaroy Planters' Association. Want of space prevents us publishing a speech delivered by Mr. Bruce N. Short on para. 8 which will appear in next week's issue.

The Planters' Library contains a list of useful books.

Mr. F. N. Riley contributes an article on the Malaya Labour Problem. With large areas annually coming into bearing the question of a sufficiency of Labour will shortly have to be seriously considered, not only in Malaya, but wherever Rubber is grown. As regards labour wages it will be noticed that the competition between European owned and native owned properties is very marked. Mysore planters will readily sympathise in this. Written by a practical planter the insight into the labour working in Malaya will be found very interesting in South India.

In our subscription list to the S. I. Planters' War Fund will be found another sum of Rs. 37-8-0 by the sale of programmes, lays, etc., from the Mundakayam Amateur Dramatic Society also a handsome contribution of Rs. 80 from the coolies of the Mayfield Estate, Nilgiris.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	57,287	8	2
Mr. H. Waddington	30	0	0
Mundakayam Amateur Dramatic Society	37	8	0
"A"	200	0	0
Mr. A. H. Roch	75	0	0
Collections from the coolies of the Mayfield Estate.	80	0	0
Mrs. Sutherland Orr, £3	45	0	0
Total,,	57,755	0	2

DEPUTY DIRECTOR OF AGRICULTURE'S TOUR IN COORG.

(Continued.)

Improvement of Coffee Varieties.

At the Conference of Coffee planters held at Bangalore last June, a good deal of discussion took place as to the best methods of improving the strain of Coffee in South India, and the claims of the Hybrid were strongly put forward by the Scientific Department, and a letter was published from Mr. Jackson of Dubarri Estate describing the results he had obtained. I had the pleasure of inspecting during this tour a clearing of the latest Hybrids which Mr. Jackson has obtained after some 20 years of patient work along selection lines.

That the best way to improve the strain of South Indian Coffee lies along these lines I am convinced. The President of the Botanical Section of the British Association in his opening address said: "The improvement of the plant from an economic point of view implies the co-operation of the botanist and the plant breeder. The student of experimental genetics by directing his work to plants of economic value is able, with the help of the resources of agriculture and horticulture to produce forms of greater economic value, kinds best suited to different localities and ranges of climate, those most immune to disease, and of the highest food value. Let the practical men formulate the ideal and then let the scientist be invited to supply it. Much valuable work has been done on these lines, but there is still plenty of scope for the organised Mendelian study of plants of economic importance."

The production of new varieties of any crop is one sure method of increasing the yield. Soil conditions are only capable of being modified to a certain limited extent, and if the plant breeder and agricultural chemist can combine to produce a new type of plant better adapted to the local conditions it is obvious that increase of crop will result.

At Dubarri a type of Coffee plant has been obtained which is fertile and comes true to seed and the consequence is that the seed can be depended upon to provide nurseries for new clearings and new estates, though I may say here that none of this seed is at present available for sale though it may be in later years. The Hybrid is a vigorous, healthy type of Arabica Coffee apparently disease resistant to a high degree, which comes into bearing early, and which gives a high yield of a good sample.

The result may be judged from the fact that some of the Hybrid trees in this clearing, though purposely planted under adverse conditions of soil, shade, and facing, are bearing in their second year at the rate of 13½ cwts. an acre and more in some cases and are holding and ripening this crop without any shedding of primaries or damage to themselves.

This shows what can be done and the work which Mr. Jackson has done should be most carefully watched by all Coffee planters. It is epoch making and the results of planting this type of Coffee on the estate scale, which is the next step, should go far to solve this question of the improvement of the strain about which a good deal has been heard of late years.

Spraying Coffee for Fungoid Diseases.

A great deal of discussion has taken place lately about the possibility and practicability of spraying Coffee as a prevention against the attacks of Leaf Disease and Black Rot, and I saw some interesting experiments which had been tried to test this method of control. In all cases the sprayed Coffee was more healthy than the neighbouring unsprayed Coffee in every way. It contained more foliage, was of a better colour, and the foliage was

largely free from Leaf Disease. Presumably therefore such sprayed trees will ripen up their crop better (even if they have not more crop than the unsprayed Coffee as they probably have) and form better spike and wood for next year.

With regard to spraying generally I think that the situation is this. In the case of Black Rot it is my opinion that it is a perfectly practical and feasible remedy. Black Rot as a rule occurs only on comparatively small patches of Coffee on the estate, and usually on the same patches each year. If these patches are pruned regularly so as to make the trees easily accessible to the spraying gang they can be sprayed each year before the monsoon and if necessary again in the break of the monsoon (though I think the second spraying will usually be unnecessary if the first one is thoroughly done) and this will undoubtedly prevent the Coffee being attacked by Black Rot to a large extent, and the crop will be saved. It will be advisable in this pre-monsoon spraying to add the Soda-Rosin adhesive to the Bordeaux Mixture.

Spraying for Leaf Disease is another problem. In this case one must spray large areas and not isolated patches to produce any marked or permanent effect and I am not sure that this is possible. I am, however, convinced that if large areas of Coffee (100 acres or more) can be sprayed at a time when the leaves are free from Leaf Disease spots and before the period when Leaf Disease is known to generally make its appearance, then the virulence of this disease would be reduced, and after a few years consistent spraying it would probably be reduced to a negligible minimum. Unless spraying is done on large areas at one time, however, the sprayed patches are reinfected from the neighbouring unsprayed portions and little effect is produced on the disease as a whole.

The practicability of the method is doubtful. In some cases, in many cases I fear, it is out of the question, neither water supply nor labour force being sufficient. In some places water would have to be carried very long distances and the labour required would be prohibitive. On the other hand it could undoubtedly be done on some estates and planters have assured me that they have found no difficulty in spraying the fields they have sprayed and are confident that they could spray very large areas without difficulty and at comparatively small cost. Where this is the case I should strongly advise that the method should be adopted.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

As regards wild rubber, a number of rubber-producing plants of the genus *Landolphia* are met with over considerable areas in Northern Rhodesia. They include several species of rubber vines and of bushes which produce root rubber. The quality of rubber produced is excellent, and the payability of the industry depends entirely on the density of distribution of plants and the cost of transport. The British South Africa Company has established a steam factory, at Chambesi, which started work just before the war broke out but which, owing to the shortage of labour brought about by the military operations on the Northern Border, has been temporarily closed down. It had, however, been at work sufficiently long to enable samples of the product to be sent home and to supply data in regard to costs of production. As the result of this preliminary information, it may be stated that the production of rubber is likely to become one of the staple industries of Northern Rhodesia.—*The Agricultural News.*

DISTRICT PLANTERS' ASSOCIATIONS

Shevaroy Planters' Association.

Proceedings of a Quarterly General Meeting of the Shevaroy Planters' Association, held at the Victoria Rooms, on Tuesday, 16th January, 1917.

PRESENT.—Messrs. R. D. Anstead (Deputy Director, Agricultural Department), E. Travers-Drapes, V. Travers-Drapes, R. A. Gilby, R. W. B. Gompertz, A. B. Kundaswamy, C. G. Lechler, W. I. Lechler, J. C. Large, E. L. Poyser, C. Rahm, W. Rahm, L. E. T. Short, B. N. Short, V. S. Wooduiss and Chas. Dickins (Honorary Secretary).

Mr. S. M. Hight by his Proxy Mr. Poyser.

„ C. L. Hight do do.

Mrs. Gaitskell by her Proxy Mr. Large.

„ Cayley do do.

Mr. C. K. Short, by his Proxy Mr. B. Short.

1. The Notice calling the meeting was taken as read.

2. MR. ANSTEAD'S VISIT.—The Honorary Secretary in opening the meeting said he was sure that all present would agree with him that as science plays a leading part on our industry, he was sure it would be the unanimous wish of the meeting that their attention should be first devoted to Mr. Anstead who had so kindly attended the meeting. It was a pleasure they had not anticipated till only recently, as when the subject of his tour was mooted at one of the former meetings, it was thought unnecessary to trouble him to visit the Shevaroy as nobody had anything of any great importance to show him. In the course of correspondence between the Association and Mr. Anstead he expressed a wish to visit us as he considered it advisable to be in touch with the various planting districts and kindly proposed attending this meeting for the purpose of arranging a programme for himself. The Honorary Secretary further stated he was certain that this consideration was very greatly appreciated by the members and he was sure, now that Mr. Anstead was amongst them, they would find there was a considerable deal of information and advice they would require from him, which he was positive Mr. Anstead would be very willing and glad to impart to those seeking it. In conclusion the Honorary Secretary proposed that the meeting should get to work and draw up a programme for Mr. Anstead.

After some discussion a tour was arranged and a lecture to be delivered by Mr. Anstead at the Victoria Rooms on Thursday the 25th, commencing at 1-30 p.m.

3. The Proceedings of Committee Meetings held on 26th October, 2nd November and 10th November were confirmed.

4. RE COFFEE CESS FOR THE ADVANCEMENT OF OUR INDUSTRY.—Proposed by Mr. R. W. B. Gompertz, seconded by Mr. J. C. Large and carried unanimously:—

“That the members of the Shevaroy Planters' Association do agree
“that it is advisable to raise a cess for the purpose of advertising
“in the various Native papers the merits of Shevaroy Coffee and
“that a sub-Committee be appointed to go into the whole
“matter.”

5. COFFEE RETURNS.—Read and recorded letter dated 15th December, 1916 from the District Superintendent of Police, Salem, to the Honorary Secretary, Shevaroy Planters' Association, sending the estimates of Coffee Returns from all holders on the Shevaroy with a request that any failure regarding the submission of the returns or cases in which the estimates sent in are grossly exaggerated, may be brought to his notice.

6. CHECKING OF COFFEE PASSES AT KONANKURICHI VILLAGE.—Read and recorded letter dated 14th November 1916 from the Deputy Superintendent of Police, to the Honorary Secretary, Shevaroy Planters' Association, with reference to the above.

7. Extract from Sanitary Commissioner's report *re* Cooly lines.

Read and recorded letter dated 30th November 1916 from the President of the Salem District Board to the Honorary Secretary, Shevaroy Planters' Association drawing attention of the Association to the Report.

8. WITH REFERENCE TO ADVANCES AND ACQUITTANCE CERTIFICATE.—Proposed by Mr. E. Travers-Drapes, seconded by Mr. E. L. Poyser and carried:

“That the members of the Shevaroy Planters' Association in meeting
“do agree that when any member is asked for an advance by a
“Maistry or cooly who states that he or she has been working
“on another Estate during the past year, they will, before
“advancing the cooly or maistry, obtain an acquittance or other
“valid proof of having cleared off his (or her) old debt before
“the cooly or maistry is advanced, and that in the case of
“coolies or maistries who state that they have not worked on
“any other estate on the Shevaroy, the planter intending to
“advance such cooly or maistry shall make such enquiries as he
“may think fit to satisfy himself of the truth of their statements
“before paying the advance.”

9. RE COOLY CONTRACTS AND AGREEMENTS, ETC.—Read letter dated 10th January, 1917 from Messrs. King and Partridge, Madras, to Honorary Secretary, Shevaroy Planters' Association. After discussing the subject

(a). It was proposed by Mr. E. Travers-Drapes and seconded by Mr. R. A. Gilby and carried unanimously:

“That the Honorary Secretary be requested to thank Messrs. King and Partridge for the trouble they have taken in the matter of the Agreements drafted by this Association, and to ask them for the kind return of the draft forms as the Association does not propose to proceed any further with the matter.”

(b). It was also proposed by Mr. E. Travers-Drapes and seconded by Mr. L. E. T. Short and carried unanimously:

"That the Honorary Secretary be requested to get the necessary number of forms of each kind of agreement drafted at the Committee Meetings of the 26th October and 2nd November 1916 printed and distributed at as early a date as possible and that these agreements be tried for a year."

10. AGENTS OF THE LABOUR DEPARTMENT TO PERSONALLY SERVE WARRANTS ON THE SHEVAROYS.—Proposed by Mr. E. Travers-Drapes, seconded by Mr. R. A. Gilby and carried unanimously:—

"That the Honorary Secretary be requested to inform the Director of the U. P. A. S. I. Labour Department that this Association would be very glad if he could order his Agents to personally serve warrants on these Hills when absconders cannot be identified by the complainant but that they do not desire the presence of any Agents of the Labour Department unless they are armed with a warrant of arrest."

11. INDIAN INDUSTRIAL COMMISSION.—Read letter dated 8th December 1916 and 18th December 1916 from the Secretary, U. P. A. S. I.

Mr. Anstead very kindly explained the subject and the meeting was unanimous in agreeing that the matter should be left in the hands of the able Committee appointed by the U. P. A. S. I. as they feel quite sure that Committee will do all in its power to further the interests of our Industry.

12. With reference to "A Planters' Control Board for Liquor Licenses in the Shevaroy's" proposed by Mr. R. W. B. Gompertz.

It was decided by the Meeting to postpone the subject to the next meeting as it was too late to proceed with further business.

The following papers were placed on the table:—

- (1) Report of the operations of the Department of Agriculture, Madras Presidency 1915-16.
- (2) Report Coimbatore Agricultural Station.
- (3) do Anakapalli do
- (4) do Hagori do
- (5) do Nandyal do
- (6) do Samalkotta do
- (7) Agriculture in India by James Mackenna, M.A. (I.C.S.)
- (8) Leaflet re use of Prickly Pear by Acting Director of Agriculture, Central Division.

(Signed) CHAS. DICKINS,

Honorary Secretary, S. P. A.

THE PLANTERS' LIBRARY.

Since the last list of books was published, (P. C. XI. p. 607), the following have come to hand:—

A Modified Method of Green Manuring.—By C. M. Hutchinson, Bulletin No. 63 of the Agricultural Research Institute, Pusa. Price 2 as. Obtainable from Messrs. Higginbothams Ltd. and Messrs. Thompson and Co., Madras.

(The majority of the text of this Bulletin was reproduced in the *Chronicle*, Vol. XI, p. 613.

Coffee : Its Treatment.—An Illustrated Catalogue of Coffee Machinery supplied by Messrs. Wm. McKinnon and Co. Ltd., 24 Spring Gardens, Aberdeen.

The various machines are described in detail in simple language, and it is claimed that this is the only complete English Catalogue relating to Coffee machinery in circulation at the present time. It is well illustrated and beautifully got up, and it describes Coffee machinery of every imaginable kind and of the latest pattern.

Notes on Oranges and Lemons.—Bulletin No. 38 of the Department of Land Records and Agriculture, United Provinces of Agra and Oudh, by H. J. Davies, Superintendent of the Government Horticultural Gardens, Lucknow. Price 1 a. 6 p. Obtainable from Messrs. Higginbothams Ltd., Madras.

A useful little pamphlet containing concise hints on the planting, manuring, pruning, budding, etc. of Oranges and other Citrus fruits.

The Book of the Madras Exhibition. 1915-16.—Price Rs. 3. Madras Government Press. Obtainable from Messrs. Higginbothams Ltd., Madras.

This book is an account of all the details of the Madras Exhibition of Arts and Industries of South India which was opened in Madras on the 27th December 1915 and closed on the 16th January 1916. It contains a number of Introductory articles dealing with the different sections of the Exhibition, and the text of twenty-two illustrated lectures delivered at the Exhibition on different subjects presenting a conspectus of the main resources and industries of the Madras Presidency its Agriculture, Forests, Fisheries, etc. The book also forms a kind of directory, giving the chief statistics relating to every crop grown in the Presidency, and it is a handy book of reference of the resources of the Presidency.

Handbook of Commercial Information, Madras.—by M. E. Couchmann, Price 12 as. Obtainable from Messrs. Higginbothams, Ltd.

This book contains in a compact form information about the foreign trade of the Madras Presidency and the Native States of Travancore and Cochin. It enables one to find out where the chief sources of supply of any product produced in the Presidency is to be found, the foreign trade in that product during recent years, the ports of export, the grades of quality, and the average price. A most useful reference book

The Proceedings of the United Planters' Association of Southern India. Annual Meeting 1916.—Price Re. 1. Obtainable from the Secretary 25, South Parade, Bangalore.

Contains the text of Mr. McKae's lecture on the subject of Abnormal Leaf-fall of Hevea, relating the life history of the fungus, and giving the most up-to-date statement yet published about this disease.

The Preparation of Plantation Rubber, a Reference Text Book for Practical Planters summarising the Information contained in the local Reports of the Resident Chemist during the Period 1910—13, by S. Morgan, Senior, Scientific Officer, Federated Malay States, for the Rubber Growers' Association.

Obtainable from The Rubber Growers' Association, 1, Oxford Court, Cannon Street, London. Price 10s.

One of the most practical and useful text books on Rubber growing that has been published for some time. It deals with practical problems of the industry of every kind, treating of tapping, estate manufacture machinery, cultivation, etc.

WASTE OF TOBACCO ASH.

BURREL B. A., in *Chemical News*.

The fact is recalled that the ash of tobacco, in the various forms in which the latter is smoked, represents on the average 30% of the burnt leaf and contains 20% of potash and 5 to 6% of phosphoric acid. If hotel proprietors and restaurant keepers had tobacco ashes methodically collected, they would be rendering a service to the country in connection with the potash problem, and at the same time making a profit for themselves.

It is found that:

A cigar weighing 106·5 grains will give about 32·3 grains of ash, of which 6·5 grains is potash;

A cigarette weighing 27 grains will give 8·5 grains of ash, of which 1·75 grains is potash;

A pipe holding 25·5 grains of tobacco will give 8 grains of ash with 1·6 grains of potash.

The results of systematic collecting of tobacco ash and unburnt tobacco also show that tobacco ash and unburnt tobacco from:

(1) the smoke-room of a club, collected for eight days, weighed 9½ ounces.

(2) the lounge of a large hotel, collected for four days, weighed 13 ounces.

(3) a large restaurant, collected for 10 days, weighed 2 lbs. 8 oz.

(4) a music hall, one tenth part of auditorium, one performance only weighed 4 ounces.

The tobacco consumed in the United Kingdom during the financial year 1913-1914 was 98,412,412 lbs., the cigars imported weighed 1,531,802 lbs. This would give a total consumption of 44,529 tons, which would represent 13.359 tons of ash. Reckoning the latter quantity as kainit with 12·5 per cent. of potash, it would represent 21,376 tons of kainit worth nearly £51,000. In the spring of 1915 it was worth nearly three times as much.—*International Review of the Science and Practice of Agriculture*.

RUBBER.

STATEMENT SHOWING THE QUANTITY OF RUBBER BY WEIGHT EXPORTED FROM SOUTH INDIAN PORTS
TO FOREIGN COUNTRIES DURING EACH MONTH OF THE YEAR 1916.

From	TUTICORIN.			TELLICHERRY.			COCHIN.	
	Colombo.	New York.	London.	London.	London.	New York.	New York.	Ceylon.
January	lbs. 83,628	lbs. ...	lbs. ...	lbs. 130,017	lbs. 35,043	lbs. 28,000	lbs. 108,706	lbs. 108,706
February	43,960	...	137,596	...	...	5,600	+2,075	+2,075
March	5,820	...	...	485,671	28,789	...	17,267	17,267
April	3,830	...	3,268	8,504	1,958	...	10,617	10,617
May	63,952	18,600	44,751	47,160	...	...	5,797	5,797
June	16,607	10,920	15,256	74,671	...	...	1,800	1,800
July	11,007	...	39,900	189,489	...	...	...	...
August	280	68,760	87,152	...	...	...	27,816	27,816
September	14,430	23,960	105,240	284,815	...	...	81,576	81,576
October	1,060	21,330	84,180	366,510	...	13,318	54,232	54,232
November	224	8,370	...	...	...	18,042	67,551	67,551
December	37,987	29,070	113,090	322,274	...	...	119,768	119,768
Totals...	282,785	181,010	630,433	1,909,111	65,790	64,960	537,205	537,205
Total Export for year	...	1,094,228	...	...	65,790	2,511,276	...	...
Total export from South India for the year	...	...	...	4,041,472*	...	...	...	...

RUBBER—(Continued.)

FROM	MADRAS.	DHANAS- KODI.	MANGALORE.		CALICUT.		
			Ceylon.	London.	London.	Ceylon.	New York.
To	Straits Settlements.	Ceylon.	lbs.	lbs.	lbs.	lbs.	lbs.
January	...	...	560	...	...	11,760	4,480
February	1,344	4,928	336	...	31,920	3,360	...
March	336	1,904	...	...	70,560	11,536	4,480
April	1,512	1,692	...	472	35,438	2,609	17,920
May	...	2,636	...	...	3,178	551	...
June	672	...	...	...	...	...	...
July	...	780	...	...	...	2,684	...
August	...	3,183	...	...	...	...	...
September	...	430	...	...	56,270	...	...
October	112	480	...	...	43,844	10,290	...
November	...	1,680	...	...	24,240	11,429	...
December	...	...	...	...	...	572	...
Totals...	3,976	17,713	896	472	265,450	54,791	26,880
Total export for year...	3,976	17,713	1,368	...	...	347,121	...
Total export from South India for the year...	...	...	...	...	...	...	...

* According to the figures given by the Madras Chamber of Commerce the total export from South India during 1916 was 4,311,582 lbs.

THE MALAYAN LABOUR PROBLEM.

The question of a sufficiency of labour on the Rubber Estates in Malaya will shortly have to be more seriously considered than it is at present.

In some parts of the country it is exceedingly severe, outlying and feverish districts suffering most, but even on some of the old established estates which are generally fairly central it is felt to some extent.

Every day practically there are fresh acres coming into tapping, and labour must be found for this. Take for example 100 acres not in bearing; if in good weeding order 6 to 7 coolies should be more than sufficient per month to keep it perfectly. Now when this area comes under the knife, an extra say 25 or more coolies are required for this one area for tapping purposes. When one considers the hundred, nay thousands of acres monthly coming into bearing over the whole peninsula the question is where can men be obtained?

A large number of Tamils are recruited from the Madras Presidency but these are insufficient, as a large number yearly return to India. I notice the figures given in last week's article in the *Planters' Chronicle* was an excess of arrivals over departures of about 19,000 for 1915. I read this figure as only 9,000, but even should it be 19,000 this number is quite insufficient, taking into consideration the fact that many thousands of acres are being newly opened for Rubber, and there was a loss of 7,000 men in 1914!

The Tamils are very carefully looked after both by the Estates themselves and also by the Immigration Office. The lines have to be of a certain standard, also the wells, and the sites have to be carefully chosen, or else they are condemned not only by the Immigration Office, but also by the Health Officer. Many lines and most hospitals have water laid on by pipes and the diet provided in the hospitals is laid down by Government: fresh milk, if possible, tinned liquid milk otherwise, eggs, chickens and various other nourishing foods are supplied, and I have heard some managers say who have a mixed labour force of Chinese and Tamils that although the Chinaman may actually get twice as much pay as the Tamil, yet the Tamils cost more per man than the Chinaman, and this is quite understandable, taking into consideration the Government yearly tax per head on the Tamil recruiting charges, Hospital expenses, etc.

The Tamil earns good wages, varying from 30 to 40 cents according to the locality but the Chinese, Japanese and Native owned estates pay the Tamil as much as 50 cents or 60 cents (1 dollar=100 cents=Rs.1-12). This takes away much labour from the European estates and these owners do no recruiting at all on their own account, but engage local labour so called, which generally means that the labour has been crimped from the adjacent European Estates, who have practically no remedy—by law, yes, in practice, no.

No labour works more than 8 hours a day, generally starting at 5-30 a.m. muster and finishing at 2 p.m., with half an hour at about 10 a.m., for food. The tappers do considerably less than 8 hours generally, finishing in many cases at 11-30 or noon.

A Tamil can live very well, taking his actual cost of living for 4 dollars a month—this of course does not include the cost of Motor Bus or Motor car rides. On pay day on the Estates which are adjacent to Main Roads one sees old motor cars owned generally by Chinese or Malays,

waiting to either take the coolies for a joy ride or else into the nearest town, packing about 10 men into one car—the police don't appear to notice the excess passengers.

Any labour can leave an Estate by giving one month's notice or a month's wages in lieu of notice, and I have known cases which are unfortunately all too common, for a labour who has absconded to a native owned estate, and has been arrested and fined by the Magistrate, for the native owner to pay the cooly's fine and also at the same time to pay down a month's wages for the cooly in lieu of notice; and presumably this is dead loss, except of course that he had the services of that particular man for as long as the man may work for him—and it is next to impossible to get evidence in order to charge the native owner under the Labour Code for Crimping.

The races used for Agricultural labour in Malaya are as follows:—

Chinese	... (about six different nationalities).
Tamils.	
Telugu.	
Malayalam	... (to a small extent only).
Javanese	... (Two or three different races).
Malays	... (Peninsula).
Malays	... (Sumatran).
Boyanese	
Bengalis	... (Mostly in Johore, and in the mines)

and various other nationalities like Sikhs, Punjabis, Afghans, Japanese, but these can hardly be called agricultural labourers,

On the outbreak of War Government repatriated a large number of Chinese coolies from Estates as there was fear of there being insufficient work for them and that they would form themselves into bands for dacoity, and also stopped the immigration of further Chinese, this prohibition has only just been raised, but it costs about \$70, seventy dollars to recruit a Chinaman, and Estates do not care to go to the expense of recruiting this labour when the cooly can give a month's notice to leave on the very day he arrives on the estate, or what is worse still can abscond with little or no chance of catching him. Moreover a cooly determined to abscond although you may catch him the first time generally succeeds in getting clean away the second time, and moreover every other Chinaman is out to help him and to put obstacles in your way. Crimping also is very rife, so much work being done now-a-days by contractors, tapping especially. You arrange for so much a pound or for so much per hundred trees with a Chinese contractor and he supplies the coolies, whom he usually crimps from some other estate paying day pay; also his coolies must be good tappers or he gets fined, therefore he crimps the best coolies. It is exceedingly hard now-a-days to get Chinamen to work on day pay, the day pay is 60 cents to 70 cents according to the neighbourhood, double what a Tamil gets but they say it is not enough to live on, and possibly it is only just sufficient if they smoke opium, but a Chinaman can really live very well on 30 cents per day; however they are so strong in their labour union, or as it is termed "Kongsi" or "Tong" meaning Society, that the average tapper can demand as much as \$1.50 per day and the very good men as much as \$2. If it wasn't for this the cost of tapping could be very much further decreased, as under present conditions

estates do not benefit as they should from their trees getting older. But there is also something to be said in favour of contract Chinese tapping and that is that the Chinaman on contract can obtain twice as much latex from the trees than can any other labour. I have tried Tamils on contract tapping but have never found them satisfactory, and I don't think they are used, or hardly at all, over the whole of Malaya on contract, a favourite form of dealing with Tamils being to give them their 35 cents for tapping plus an extra 5 cents per lb. for scrap, plus an extra 5 cents per lb. of latex over a certain number of lbs.—depending on the age of the trees and the output therefrom. If they are to bring in 5 lbs. of latex for their 35 cents or as much as they can up to 5 lbs.—then anything over the 5 lbs. they get paid for at the rate of 5 cents per lb.

To revert again to the Chinese they are getting more and more independent and are getting worse to deal with. If on an Estate they don't like such and such a rule then you must either alter that rule or they leave, and as they don't like any rule of any kind whatsoever, it generally means all rules are a dead letter and they do much as they like.

I know one estate where the Chinese contract tapping coolies objected to going to muster but wished to go out to tap at their own time, the consequence being that you never knew how many coolies were actually going out and whether you had a full tapping force or not. Some of them even going out to work as late as 7 o'clock in the morning, the Assistant made them come to muster, the Assistant being a new man from another Estate, the coolies struck work and the matter was brought before the Manager. A compromise was effected that the coolies should turn out to muster but that they should be allowed to go back to the lines again after muster; this of course meant that the coolies who were going to work came to muster say at 5-45 a.m., and then went back to the lines where they stayed till 6-30 or 7 o'clock the same as before. If matters had been forced further and the Assistant did try to do so, to a certain extent, the whole labour force would have left; the only thing therefore to do was to grin and bear it. This gives one some idea of how the Chinaman controls the situation.

Malays are lazy—good tappers when they work but erratic in their attendance. If there is a large village near which is dependent more or less on the Estate then they do work very well indeed, as one can penalise an individual by stopping him working any more on the estate; this may mean he has to go further afield to get work which is possibly not so handy and close to his village where he always loves to spend the time he is not working. Malays are very polite and are nice people to deal with but I know many Estates who refuse to employ Malays even although they may be more or less on the spot, but this was before the War. At present one cannot afford to refuse any labour.

Javanese.—There are several races of Javanese speaking different languages; they are fairly good workers, if properly understood, and are in fair numbers, a great many are in Northern Johore. They are an exceedingly bad tempered people, are more or less always ready with a knife, especially the Sundunese who are extremely quarrelsome. The Javanese is much more of a cooly than the Malay who may be described as the gentleman of all natives. Javanese will do weeding, draining, digging etc. which a Malay will not do. If a Javanese is recruited from Java, and they can be with consent of the Dutch Authorities, they cost about \$70 per head, and Northern Johore have recruited a fairly large number.

Boyonese.—This race of people from the Island of Boya are very much like the Malays, speaking however a different language and have come in of their own accord, settling as a rule near Singapore. They make excellent tappers and nearly all syces are Boyonese men.

The Sumatran Malay is not much use. He usually comes across from Sumatra and settles in Selangor where he gets a small piece of land from Government on which he builds a house and grows bananas, tapioca, with rubber trees in between. Upon this he lives until his trees come into bearing, or should he be very hard up he will perhaps condescend to work for a month or two. They are not such nice people as the Peninsula Malays and are sometimes very dirty.

To take the comparative worths of the various forms of labour, I should say that for all round work the Chinaman is easily first, then come the Tamils and the races akin to them after them the Javanese and Malays and the remaining races last.

The only form of labour which is really any good for felling jungle is the Chinaman, the Tamil is useless, but Malays are some good to a certain extent if one can get them to finish the work they have contracted to do, whilst Sakais, who are an aboriginal race inhabiting the hills and rarely seen, and speaking a peculiar language of their own, are good at this work. Conversation with them is carried on in the Malay language.

One wonders perhaps how the Malayan planter manages to converse with all these different races—the Chinaman speaking six different languages so that one race cannot speak to another race unless they know one another's language, the Tamils, Telugus, and Malayalams, the Javanese speaking say 3 different tongues, the Boyonese, Malays and Northern Indians—the answer is very simple. The Malay language may be described as the French of the Peninsula. All these races learn to speak Malay, or else their headmen do, and conversation is carried on in the Malay language, with the exception of the Tamils, Telugus and Malayalams with whom Tamil is the language used, so that a knowledge of Malay and Tamil is all one requires. English is seldom if ever used in conversing with a native, except, of course, the educated native.

F. M. RILEY.

UNITED STATES OF AMERICA.

PRODUCTION OF POTASH FROM KELP: STATE PLANT TO BE ERECTED.

According to the New York "Journal of Commerce" of 24th November, a plant on a commercial scale is to be set up by the United States Department of Agriculture for the conduct of experimental work in the production of potash from kelp, an appropriation of 175,000 dols. (about £36,000) having been made for this purpose. It is expected that the plant will be established in Southern California, either at Santa Barbara or Long Beach, and that constructive work will be begun soon after the site has been decided upon.

The plans are for a plant capable of dealing with approximately 200 tons of wet kelp per day. The equipment will consist of drying kilns distilling chambers, vats, handling machinery, etc. Electric power will probably be used for all mechanical operations, while heat for drying and distillation will be furnished by the use of crude petroleum. From 200 tons of kelp treated daily about 5 tons of muriate of potash will be manufactured.

The primary purpose of the plant will be to determine the most economical processes for producing potash from kelp and to work out methods for the recovery and utilisation of by-products. Numerous methods will be employed experimentally, but for the most part the Department of Agriculture will rely on distillation processes.—*The Board of Trade Journal*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 5.] FEBRUARY 3, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, left for Pusa on 31st January to attend a conference of Mycologists and Entomologists to be held there on the 5th February and following days. At this Conference many points will be discussed of great importance and interest to the Planting Community. Other delegates to the Conference are Dr. Coleman and Mr. McRae.

Before leaving, he contributed an article on the Abnormal Leaf-fall of Hevea Rubber in which is published a programme which is the outcome of the R. G. A. Meeting at Cochin in November last, for the guidance of those gentlemen who so generously placed large acreages at the disposal of the Scientific Department.

We publish the Annual Meeting of the Mundakayam and West Coast Planters' Association.

We print Mr. Short's speech at the last meeting of the Shevaroy Planters' Association.

In our correspondence columns will be found a letter from Mr. Poyser on Collar Pruning and the Deputy Director's note on the point on which information was asked for.

We learn that Messrs. Petrie Hay & Son, Hunsur are opening Engineering Works at Bangalore and started making Machinery of every description and that their works are run under the supervision of two fully trained European Engineers.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	57,755	0	2
Messrs. Barber and Pascoe	75	0	0
Mr. G. H. Browne	80	0	0
Mr. J. A. Richardson	50	0	0
The Hon'ble Mr. E. F. Barber	100	0	0
Mr. Stephen Bayly	10	0	0
Mr. G. R. Pearse	20	0	0
Mr. A. F. F. Martin	75	0	0
Total...	58,165	0	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

Abnormal Leaf-fall of Hevea Rubber.

At a Meeting of the South Indian Branch of the Rubber Growers' Association held at Cochin on the 25th November 1916, a discussion took place on the subject of the Abnormal Leaf-fall of Hevea and, as already reported in the *Planters' Chronicle* (Vol. XI, p.p. 628-30.), it was decided to carry out some large scale experiments with regard to its control. A total area of 900 acres was offered for these experiments, distributed over five estates in different localities, and it was agreed that the Government Mycologist and the Deputy Director of Agriculture should draw up and circulate to the managers of the estates which had offered areas for the purpose of the experiments, a programme of the experimental work which they wished to have carried out. At the same time it was stated that this programme would be published in the pages of the *Chronicle* so that any other Rubber planters who wish to do so may carry out the experiments. It need hardly be pointed out the more places in which the proposed experiments are carried out the more likely are reliable results to be obtained and the point settled once for all whether the methods of control suggested will prove successful and whether they are practical on an estate scale.

The programme has now been drawn up and circulated to the estates which are conducting the experiments. It is as follows:—

A block of 100 acres, or more, but not much less, is to be chosen for experiment.

What to do.

- (1) Cut out all branches large and small which have died back.
- (2) Remove all last year's fruits and fruit stalks still hanging on the trees.
- (3) Have all leaves, fruits, twigs and branches, on the ground collected and destroyed. Either burn them or bury them, or partly the one and partly the other. This is important as it destroys the sources of infection within the plot.
- (4) Remove all fruits by 1st June, or at the very latest by the 10th June.
- (4a) As an alternative to (4), remove the flowers and again by 1st June any stray fruits which may have developed.

The first three of these items may be done most easily just before, or while, the leaves are flushing, as the dead parts will be more easily distinguished at that time.

There is a difficulty about the alternative (4a) in that the flowering season may be of some duration, *i.e.* there may be an interval of some days between the early and late flowers, by which is meant not early and late flowers in the same spike, but early and late spikes. One would have to wait till all the flower spikes were out before removing them, or else the coolies would have to go over the trees more than once. The flowering season lasts over different periods in different districts and localities no doubt, and the planter would have to decide from his experience of his district when to do this work.

It may be considerably easier to remove flower spikes with delicate stalks than fruits with fairly tough stalks, but on the other hand every flower stalk may not, and indeed probably does not, produce a fruit. *A priori*, therefore, we think that removing fruits will be, all things considered, the cheaper method to adopt, but this can really only be definitely decided by trial.

How the efficacy of the operations will be judged.

(a) By the eye, estimating the amount of leaf-fall.

(1) on the experimental area.

(2) on the rest of the estate.

(b) By the experience of the past and the amount of disease present on the estate as compared with the amount which might have been expected on the experimental area and the amount actually present.

(c) By tapping results.

It will be a difficult matter to judge results with any great degree of accuracy no doubt and the experiment is not one in which a numerical result can be obtained. The result will largely depend upon the knowledge of the district and the past experience of the disease and must be estimated by the planter himself. Still it is hoped that the difference between the untreated and the treated areas will be sufficiently marked to enable us to arrive at a conclusion.

The difficulty of arranging for definite control plots with which to compare results is great, as it will be difficult to find large areas like 100 acres agreeing in a sufficient number of factors. The Government Mycologist and the Deputy Director of Agriculture are, however, going to pay a visit of inspection to all the areas undertaking the experiment in April and when on the spot and after having inspected the sites chosen for the experimental areas they hope to manage to do something in this direction and to define certain untreated areas which may be used as control plots and thus furnish a comparison which, while it may not be strictly accurate or all that could be desired, yet will help to make the final judgment of the results obtained more conclusive.

The ideal way of conducting the experiment would be to have two blocks, each of 100 acres or more, exactly similar as regards the following points:—

Elevation; slope and character of the ground; aspect; age of trees; number and character of the trees; amount of previous infection; position relative to the jungle; position relative to the monsoon wind.

Could two such blocks be obtained and one treated and the other left alone we should have one block exposed to infection from both external and internal sources, while the other, the treated block, would be exposed to external sources to exactly the same extent as the other, the untreated block, but exposed to internal sources of infection inversely in proportion to the efficiency of the operations. The more carefully the work is done the less will there be of the fungus within the plot.

Again the untreated area will have fruits to rapidly propagate the fungus during the monsoon while the treated block will have none.

These ideal conditions will be hard to realise, but the best that can be done will be done. Probably the comparison will finally have to be made in most cases with the rest of the estate.

Finally a careful record will be kept of the exact cost of all the operations, since one of the main objects of this experiment is to ascertain whether such operations as those recommended are capable of being carried out on a large scale or whether they are too costly.

Experiments made by other Rubber planters on the above lines will all help us to come to some definite conclusion as to possible means of controlling this disease which at present undoubtedly causes a considerable amount of loss, and reports on any such experiments, or anything bearing on the subject will be very welcome.

Tea for the Troops.

We are indebted to the *Daily Telegraph* for the following account of how the Tea is packed for the troops.

An important duty undertaken by the Port of London Authority is the blending and packing of tea for the troops. At the Authority's extensive bonded warehouses in Commercial Road and Cutler Street the whole of the tea supplies for the Expeditionary Force and half of those required for the vast army now in training in this country are skilfully dealt with. Indian, Ceylon, and China teas, the latter more limited in degree, each contribute their quota. The extent of the task is reflected in the increasing vehicular traffic in the neighbourhood of these two great depots. Tea bought by the War Office in bond on the London market is delivered there in departmental lorries. Other Government vehicles arrive stacked with brand new tin canisters and wooden cases specially made to secure safe and convenient distribution. Still other Government lorries are engaged in speeding the blended tea towards the place of ultimate consumption. At the warehouses the cases in which the tea was shipped from the country of origin are emptied until there is a mound of tea or perhaps twenty-five or thirty tons, reaching in the centre as high as from 13 feet to 15 feet. Then comes the process of blending, the object of which is of course the thorough mixing of the tea so as to secure a perfectly even quality throughout. Wooden spades are employed in the work, hand labour being for this purpose considered more effective than machinery. Another staff of men is employed in weighing out the blended tea and filling the canisters, each of which holds 15 lbs. To keep the canisters air tight and weather proof, a tin cover is soldered over the lid, the charcoal fires for this purpose being placed outside the warehouse windows for greater safety. Two 15 lb. canisters exactly fit the officially marked wooden cases, which are thus of convenient weight for transport in the field. Many thousands of canisters are filled and sent away each week to the front. Tea for the Home Army after being blended, is usually repacked in the original cases. The skilled workman engaged in bulking, blending, and packing Tommy's tea appear to take a special pride in "doing their bit."

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS**West Coast Planters' Association.**

Proceedings of the Annual General Meeting held at the Malabar Club, Calicut, on 20th January, 1917.

PRESENT.—Kerala Rubber Co., Ltd., per Messrs. Campbell Hunt (Chairman) and A. H. Robb; Wandur Rubber Syndicate per Mr. Campbell Hunt; Pullangode Rubber Estate, Ltd., per Mr. R. H. Crowther; Calicut Estate Syndicate per Mr. H. H. Tippetts; Mysore Rubber Syndicate per Mr. L. M. Guyver; Pudukad Rubber Co., Ltd., per Mr. C. Barton Wright; Mooly Valley Rubber Co., Ltd., per Messrs. A. H. Mead, H. Halliley, F. Dickason, H. H. C. Lohr and A. Middleton; Eddivanna Rubber and Tea Co., Ltd., per Mr. R. Lescher (Honorary Secretary).

The minutes of the last meeting were confirmed.

326. Mr. R. Percival was unanimously elected a private member on the proposal of Mr. R. Lescher, seconded by Mr. A. H. Mead.

327. **THE CHAIRMAN'S ADDRESS.**—The Chairman addressed the meeting as follows:—

We have passed through another year of this Sanguinary War. We as a nation have made great sacrifices and though the end has not come as soon as we could have wished, our determination and the unity of our brave allies to bring things to a successful issue is probably greater now than it ever has been. The silver lining to the dark cloud is now beginning to show itself and I hope, Gentlemen, that before we sit round this table, to hold our next general meeting we shall have attained that end for which we have made such great efforts and sacrifices and that is "THE EXTINCTION OF PRUSSIAN OVERBEARING MILITARISM AND PEACE ON OUR OWN TERMS." Many men who are members of our Association are doing their bit, some have given their lives and we who could not answer the call of our country are all I am sure making up in other ways what we could not give in personal services.

328. **REGARDING OUR INDUSTRY IN GENERAL.** The past season has been an abnormal one all over South India. The S. W. Monsoon burst a fortnight earlier than usual and the continuous rain in June seriously hampered Tapping operations, and health conditions of the Labour in May and June on most estates were far from good. Notwithstanding this early set back, I think I am right in saying, that crops on the whole have been satisfactory and most of us have got our estimates and over. Prices generally have been favourable, January opened with rubber round 4 shillings, from then there was a decline dropping to 2s. 3d. in July, prices then remained steady between 2s. 3d. and 2s. 6d. and the year closed with rubber at 3 shillings.

329. **SHIPPING TONNAGE.**—Regarding tonnage all have, I believe, nothing to complain about, the shipping companies have kept up fairly regular services during the year under the circumstance and we have been able to get our produce on to the Markets in good time.

330. **SHIPPING FREIGHTS.**—Cost of freight has risen enormously and stands at round 245s. 6d. per shipping ton, and we have been informed that there is every probability of this being raised at short notice. Now you will all agree with me that there should be some limit to this. As this subject is on our Agenda to-day and will be discussed I need make no further comment,

331. **EXCESS PROFITS TAX.**—The decision regarding this has been a great disappointment to all of us who are interested in Sterling Companies: it hits us very hard as most of our estates have just or are just about to reach the dividend paying stage wanted. It is a formidable tax and with income tax at 4/6 in the £ there is not much left for the shareholder who has had his money in from the beginning. I was going to suggest that the R. G. Association would not relax their efforts in trying to minimise the burden but have since read that there is "No appeal" so I suppose we have to resign ourselves to "Grin and bear it."

332. **SECOND LEAF FALL.**—Gentlemen, I think our profound thanks are due to the Government in having lent us the valuable services of Mr. McRae who has made such an interesting and instructive study of "SECOND LEAF FALL." Up till a short time ago we were entirely ignorant of the conditions as to its causes and most of us I think attributed it to the heavy monsoon. Mr. McRae has thrown a different light on the matter and I hope with his valuable advice and co-operation we shall soon be able to find a suitable remedy.

I feel it would be out of place at this meeting, as we are an association of rubber planters not to refer to the untimely death of the late Mr. Arthur Lampard. He was one who was a great authority in rubber circles and who did so much by his sound and practical addresses in restoring the confidence of the public in rubber as an investment during the panic that ensued after the boom. We have all read his speeches on the statistical position of rubber with much interest and in the death of Mr. Lampard the rubber world has lost one of its most energetic and valuable men. Before closing on this subject I would suggest that we ask our Honorary Secretary to convey our condolence to the bereaved family.

A change has been necessitated in our office bearers during the past year owing to Mr. Waddington having left our circles. Many very important questions have arisen during the past three years when Mr. Waddington was Honorary Secretary and our thanks are due to him for the very valuable services he rendered. He never spared energy time or trouble in going into every detail in connection with association matters and his departure has been a great loss not only to our association but to the District in general. Mr. Lescher very kindly consented to take on the duties.

In conclusion, gentlemen, I have firstly to thank you for the honour in having elected me as your Chairman during the past year and secondly Messrs. Waddington and Lescher for having done all the work and made my duties so pleasant. I now place my resignation in your hands.

The Honorary Secretary's report for the year 1916 was read as follows:—

REPORT OF THE HONORARY SECRETARY FOR THE YEAR ENDING 31/12/1916. During the year under review only three meetings have been held by the Association, all at the Malabar Club, Calicut. These have been well attended. The acreage subscribing to the Association is 14713 acres as at 31st December 1916 (all rubber with exception 101 acres tea) and consisting of 13 Companies in charge of 12 Managers and 15 Assistants. This works out at 515 acres per European. There are 11 private members. I regret that there are still eight non subscribing companies in the district comprising 6494 acres, but I hope during the coming year we shall have the pleasure of enrolling further subscribers. It would facilitate the work of the Honorary Secretary if members would notify him as early as possible of any change in the acreage of their estates.

WEST COAST PLANTERS' ASSOCIATION.
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDING 31ST DECEMBER, 1916.

INCOME.		EXPENDITURE.	
	Rs. a. p.		Rs. a. p.
<i>To Balance brought forward—</i>		<i>By Subscription—</i>	
At National Bank of India ...	767 5 0	U. P. A. S. I. ...	...
Cash with the Honorary Secretary ...	22 7 2	<i>Expenditure account—</i>	
		Subscription ...	...
		C. P. A. ...	25 0 0
<i>Subscriptions Received—</i>		Subscription: Lady Amphihill	
Estates ...	2,298 15 11	N. Institute ...	100 0 0
Private Members ...	120 0 0	U. P. A. S. I. Delegates ...	300 0 0
		Stationery ...	6 5 0
		Printing ...	15 0 0
		U. P. A. S. I. Book of Pro-ceedings ...	42 8 0
		Postages & receipt stamps ...	28 3 3
		Telegrams ...	1 13 6
		Money Order Commissions ...	0 4 0
		Wages and Batta to cooly to Chairman ...	1 4 0
		Bank charges: Commission on Cheques ...	3 2 11
		<i>Balance—</i>	
		At National Bank of India ...	839 13 0
		Cash with Hon. Secretary ...	16 11 11
			523 8 8
			856 8 11
Total Rs...	...	Total Rs...	3,208 12 1

R. LESCHER, Honorary Secretary.

333. THE ACCOUNTS FOR THE YEAR ARE ON THE TABLE.—Actual running expenses (exclusive of subscriptions and Delegate's expenses) amounted to Rs. 98/8/8 against Rs. 62/8/6 last year. Each member was provided with a Book of Proceedings of the U.P.A.S.I. Bangalore meeting however, hence the increase. We close with a balance of Rs. 856/8/11 against Rs. 789/12/2 last year. Our finances appear satisfactory and there are no accounts outstanding.

334. S. I. P. B. FUND.—I have received for and remitted to this Fund Rs. 260 during the present year. There are still several non-subscribing members, who, I sincerely trust, will come in with a donation, however small, during the coming season.

335. 1917 BUDGET.—No reduction of expenditure can be foreseen for the current year, which will amount to approximately Rs. 2,378. Our income will aggregate approximately Rs. 2,420 at 2½ annas per acre and including private members' subscriptions. It is for members to decide whether the acreage cess is to remain the same. I think it should.

I thank members for the wholehearted support they have given me during the few months I have had the pleasure of serving them as Honorary Secretary and now beg to tender my resignation.

R. LESCHER.

336. S. I. BRANCH OF THE RUBBER GROWERS' ASSOCIATION.—The report of the Delegates to the Cochin meeting of 25th November, 1916 was read by the Honorary Secretary.

Report on R. G. A. Meeting held at Cochin November 25th 1916.

I attended the R. G. A. meeting at Cochin on the 25th as Co-delegate with Mr. Halliley at the request of Mr. Lescher. You have all seen reports of the meeting in the *Planters' Chronicle* so that there is little to add.

The fact that Mr. Marsden did not turn up at the last meeting was much commented upon, the meeting was postponed a day on the chance that he had missed his train, but no explanation has been received from him of his non-arrival.

A vote of condolence with the relatives of Mr. C. A. Lampard was passed. He was, as you all know, one of the strongest and most optimistic supporters of the Plantation Rubber Industry.

The information was given that interests representing 42,000 acres out of 58,000 planted in Southern India, have joined the Rubber Growers' Association. The sooner the remaining 16,000 join the better for them and for the industry generally in this country.

The price of Plantation Rubber compared with Para was the subject of a resolution by Mr. J. R. Vincent which I had much pleasure in seconding. In this connection it is most pleasurable to note that the price of Plantation has recently risen greatly and is now very little below Para. As Mr. Vincent pointed out the bad prices ruling before were probably due to manipulation of the Market by big American buyers.

Pink Disease and Secondary Leaf Fall were the subjects of most interesting discussion. I proposed your resolution *re* the treatment of the former with Bordeaux Mixture, which Mr. Halliley kindly seconded. An amendment, which was very much the same as the original resolution, was proposed by Mr. Anstead and passed. The only difference was that our resolution said that "Bordeaux Mixture had not proved a satisfactory prevention for Pink" and this fact I think all practical rubber planters will bear out most strongly. If by experiment the use of Bordeaux can be

proved to be a practicable remedy for this disease it will be a splendid thing for all of us, as the disease is very prevalent on most Estates. The more Estates that undertake to carry out these experiments in consultation with the Scientific Department, the better and more reliable will be the results.

Mr. McRae's remarks on Secondary Leaf Fall, which you have seen, were most interesting and a large acreage was promised at the meeting for experiments on the treatment of this Disease.

The next meeting was fixed to be held at Calicut some time in March.

S. P. EATON.

Proposed by Mr. Lescher and seconded by Mr. L. M. Guyver and carried that Messrs. Eaton and Halliley be thanked for attending the meeting.

At this juncture it was pointed out that the *Planters' Chronicle* of the 9th December was incorrect in saying that the Moopley Valley Rubber Co., Ltd., had *definitely* promised 500 acres for abnormal leaf fall experiment. Subject to the approval of the Directors, however, the Company will experiment over 500 acres if necessary.

Mr. Campbell Hunt considered that March was an inconvenient month to hold the next meeting of the Local Branch inasmuch as most Rubber planters at that time of the year are on furlough. The Honorary Secretary was instructed to write the Secretary, S. I. Branch of the R. G. A. on this point to see whether a further meeting in May could possibly be convened.

On the motion of Mr. A. H. Mead seconded by Mr. Halliley, Mr. Hunt was elected to represent this Association at the next meeting and in case Mr. Hunt could not attend it was left to the Honorary Secretary to arrange a representative.

337. SCIENTIFIC DEPARTMENT.—Correspondence on this subject was read and recorded.

338. INDIAN INDUSTRIAL COMMISSION.—After the subject had been fully discussed by members it was proposed from the chair that the Planting Member, the Hon'ble Mr. E. F. Barber was the most suitable gentleman to give evidence before the Industrial Commission on behalf of the Indian Planting Industries. Carried unanimously.

339. RUBBER THEFTS.—Various correspondence was read on this subject and recorded. The meeting was of opinion that this was a matter of increasing interest and whilst recognising its seriousness, was not, at this juncture, prepared to suggest any specific remedy.

340. SHIPPING FREIGHTS.—The South Travancore Association's resolution of the 28th November 1916 was read, as also was various other correspondence on the subject. It was proposed from the Chair and carried that this Association supports the S. T. A. resolution; but at the same time does not consider that anything short of Government control can ameliorate the present deplorable rate of freight.

341. MEDICAL.—Correspondence *re* the Karuvarakundu—Kalikavu Dispensary was read and recorded.

342. ROADS.—Correspondence *re* Wandur—Tiruvalli and Nadghani ghaut roads was laid on the table and noted. With regard to the Travancore Thodupuzha—Koothattukullam road and the Thodupuzha ferry, Mr. A. C. Morrell's letter to the Honorary Secretary of the 30th ultimo was read

and the meeting extended unanimous support. The Honorary Secretary was instructed to write to the Chief Engineer, P. W. D., Trevandrum, on the subject.

343. **TIMBER TRAFFIC. (REGISTRATION OF CARTS).**—Under this heading the Honorary Secretary reported that the District Board of Malabar had passed rules for the regulation of timber traffic on certain roads. The meeting firmly endorsed these but considered registration of carts a necessity to enforce these rules with proper effect.

344. **OFFICE BEARERS FOR 1917.**—The following gentlemen were elected to serve :—

Chairman	...	Mr. Campbell Hunt.
Honorary Secretary	...	Mr. R. Lescher.
Committee	}	Mr. A. H. Mead.
		Mr. A. C. Morrell.
		Mr. H. Halliley.

On the motion of Mr. A. H. Mead seconded by Mr. Barton Wright a vote of thanks was passed to the Chairman and Honorary Secretary. It was resolved that the first General meeting of 1917 be held in Calicut during May, date to be arranged later.

With a vote of thanks to the Honorary Secretary and Members of the Malabar Club for the use of the room, the meeting terminated.

(Signed) CAMPBELL HUNT,
Chairman.

(") R. LESCHER,
Hony. Secretary.

Mundakayam Planters' Association.

Minutes of Annual General Meeting of the Mundakayam Planters' Association held in the Mundakayam Club on January 13th, 1917.

PRESENT.—Messrs. H. M. E. Howson (Chairman), H. B. Kirk, R. Harley, J. B. Vincent, E. E. Eyre, A. Hamond, N. D. Pollock, T. W. H. Fitchett, E. Vincent, H. J. Byrne, J. E. Heflebower and H. McPherson. By Proxy :—Messrs. C. H. Danvers Davy, and C. Hendry (Acting Honorary Secretary).

Before commencing the business of the Meeting the Chairman referred to the sad loss sustained by the Association through the death of one of its members Mr. P. Napier of Mundakayam Estate, and asked the members to pass a vote of condolence with his relatives, to be communicated to them by Mr. Wm. Hendry which was passed in silence, all members standing.

In the absence of the Acting Honorary Secretary, Mr. Kirk very kindly consented to take up his duties for the Meeting.

Mr. J. R. Vincent requested that the paragraph relating to the Rubber Thefts Act in the Minutes of the last Meeting be read, after which the Minutes were adopted.

CHAIRMAN'S REPORT.—Mr. Howson addressed the meeting in the following words:—

Gentlemen,

Reviewing the events of the past year of particular importance to this District, the visit of His Excellency the Governor of Madras stands out well in advance of anything else. His Excellency's visit was undoubtedly of great benefit to us in many ways and we only regret the honour is not granted to us more frequently. His Excellency was good enough to overlook the inconvenience he was asked to undergo, and assured me that he had enjoyed his visit here thoroughly, and wished me to thank you all on his behalf.

The last year has been a good one for crop, the district having produced something over 1½ million pounds of Rubber at a cost which leaves a fair margin of profit from the area in full bearing. A few years ago we were led to believe that Travancore could never be an ideal place for Rubber cultivation on account of the long drought and exceptionally heavy rains during the monsoon, but I am thankful to say that we have now had to alter our former opinion and I can quote figures which compare favourably with other countries. Yendayar Estate and Kutikal Estate have secured 360 and 326 lbs per acre respectively from 1906 planting and another Estate namely Nenmeny, 150 lbs. per acre from 1911 rubber, which I think is a record for five years old rubber. Few Estates in Ceylon can show over 320 lbs. per acre for the whole area in bearing which is the figure secured by one of the largest Companies in Travancore, and I think we may now view the future with every prospect of success, as our trees have been more leniently treated than those elsewhere.

Another year of war has passed which has unfortunately not been without its disappointments, which is inclined to make us consider if we are doing all we can to help to prosecute it to a successful conclusion. It is difficult to decide how we out here, who for one reason or another are unable to proceed home and join the forces can best help towards this conclusion, and until compulsion comes this must be left to our own judgment.

Cutting down expenses and saving money is not going to help in the least, unless that money is sent home, and it were better to spend one's income on luxuries produced in Britain, part payment of which at any rate eventually finds its way home, than to allow those savings to accumulate in the Banks out here, or be invested locally.

The reconstruction of the Government, followed by the appeal for peace from the instigators of the war, on a basis of "in statu quo ante," whereas less than two years ago they were anticipating an enormous expansion of the German Empire, and the extortion of a fabulous sum as war indemnity, has brightened the outlook and leads us to believe that the final victory for the Allies and Right is approaching within view.

HONORARY SECRETARY'S REPORT.—Mr. Kirk then read the following report from the Acting Honorary Secretary:—

"Mr. Chairman and Gentlemen,—I have the honour of submitting to you the Annual Secretarial Report for 1916. I took over the work of Honorary Secretary in September from Mr. S. P. Eaton who left the District.

ACREAGES.—During the year, the acreage under rubber was 11,976'37, Tea 985'36 and Tea and rubber interplanted 45'00 making a total of 13,006'73 acres as against a total of 12,717'47 under cultivation in 1915. All subscriptions to the Association have been fully paid at the cess rate of 3.as. per acre from Estates and subscriptions of Rs.10 each from private members.

PLANTERS' BENEVOLENT FUND.—I regret to have to announce that during 1916 no subscriptions have been received towards this fund, doubtless accounted for by the fact that practically everyone has subscribed very liberally to the South India Planters' War Fund. I trust however that this fund has not been forgotten, and that during 1917 subscriptions will be liberally forthcoming, especially since the alterations in the rules enabling anyone who contributes Rs.200 to become a patron, no matter over how long a period his subscriptions may be spread.

SOUTH INDIA PLANTERS' WAR FUND. During the year under review Rs. 1,095, have been subscribed through the Association to this Fund, and although this is a very handsome amount, I would venture to hope that this year's total may be even larger.

TOWN IMPROVEMENT COMMITTEE. It has been impossible to do anything much to further the movement for a T. I. C. in Mundakayam, which I think every one will agree is badly needed. A Committee was elected at the last Quarterly meeting in September to meet Mr. Robinson, who was expected to be in Mundakayam about that time, to discuss the matter of a T. I. C. Mr. Robinson however, unfortunately, was unable to visit Mundakayam after all, but I trust on his next visit a Committee from the Association will meet him on this matter.

KODIMATHA LANDING STAGE.—The sum of Rs. 2,750 was lent to Government for the completion of work on this landing stage, which was subscribed for by four Estates. The amount was repaid by the Government in October and each of the Estates concerned has been repaid by the Association.

AUDITOR'S REPORT.—The books which are before you on the table, have been audited by Mr. N. D. Pollock who will submit his report to you.

The Association was very ably represented at the U. P. A. S. I. Annual Meeting in August, and at the last Sri Mulam Popular Assembly by Mr. S. P. Eaton.

In April last the District was honoured by a visit from His Excellency, Lord Pentland, Governor of Madras, who showed great interest in connection with the Planting affairs of the district.

While submitting my resignation to you, allow me to thank our Chairman and other members of the Committee for the generous assistance rendered by them, making my duties as Acting Honorary Secretary much easier than they might otherwise have been.

I very much regret, owing to illness I shall be unable to submit this report to you in person."

AUDITOR'S REPORT.—Mr. Pollock stated that he had audited the accounts and had found them to be correct. He pointed out that there was a difference of 4 annas 6 pies between the balances shown in the Ledger and the Bank Pass Book accounted for by a small item under "Postages" having been omitted, the Association Books, having been closed before the Bank Pass Book was received. He drew attention to the items of Rs. 100 standing on "Suspense account" which he was unable to explain. The Chairman then explained that this amount was paid to Mr. Zachariah for the erection of a segregation Camp in Mundakayam, at the time of the small-pox epidemic early in 1915.

Mr. J. R. Vincent proposed "that this amount should be written off and that an amended copy of the Balance Sheet be circulated to all members." This was seconded by Mr. N. Pollock and carried,

RUBBER GROWERS' ASSOCIATION.—Mr. Kirk proposed "that this Association do join the Rubber Growers' Association, as an Association, but do not allow the Honorary Secretary to circulate reading matter received from R. G. A." This was seconded by Mr. Harley and carried.

SRI MULAM POPULAR ASSEMBLY.—The Chairman informed the meeting that a committee meeting had been held on 6th January to decide subjects to be brought up at the forthcoming assembly, and the necessary instructions had been given to Mr. E. Vincent whom the Association had appointed their Delegate. These subjects namely (1) Hospital and Medicines and (2) the Mundakayam—Ranni Road, were confirmed by the meeting.

ST. GEORGE'S HOMES.—Mr. Kirk informed the members he had been appointed official collector for Mundakayam, and he asked permission to pass round a subscription list. Permission was granted and a handsome amount was subscribed.

INDIAN INDUSTRIAL COMMISSION.—Communications from the Secretary U. P. A. S. I. were handed round, relating to this Commission, and the Chairman informed the meeting that he had written to Mr. Norton suggesting that we would like a witness with full knowledge of the conditions prevailing in Travancore, elected, and that we had suggested the name of Mr. J. A. Richardson, if that gentleman could be persuaded to attend. This had the support of the meeting.

SCIENTIFIC SCHEME.—It was unanimously decided "that in the opinion of this Association, no work should be undertaken and no expenditure incurred until a definite promise of financial support had been received from Government.

KODIMATHA LANDING STAGE.—The attention of the meeting was drawn to the fact that practically no progress had been made with the new Landing Stage at Kottayam, and that the work appeared to be entirely suspended. The Honorary Secretary was requested to write to Government and point out that if work was not proceeded with at once, the arrival of the monsoon would again delay completion. The meeting thought the attention of the Government ought to be drawn to the fact that the Association loan was given last year with the object of enabling the P. W. D. to complete the work before last monsoon.

CORRESPONDENCE. Several letters relating to "Shipping Freights" were read but it was resolved that nothing could be gained by discussion on this subject.

ELECTION OF OFFICE BEARERS. On the vote of the meeting the following Office bearers were elected for 1917:—

Chairman. Mr. E. E. Eyre.

Vice-Chairman. Mr. J. R. Vincent.

Honorary Secretary. Mr. Charles Hendry.

Committee. Messrs. R. Harley, J. J. Murphy, H. M. E. Howson, and Wm. Hendry. The Chairman, Vice-Chairman, and Honorary Secretary to be members of Committee "*ex-officio*."

A hearty vote of thanks to the Chair, then terminated the proceedings.

(Signed) EDMUND E. EYRE, *Chairman*.

() CHARLES HENDRY, *Hony. Secretary*.

Shevaroy Planters' Association.

Report of Mr. Bruce N. Short's speech at the Shevaroy Planters' Association Meeting on the 16th January on Mr. Travers Drapes' Resolution.

To start with I must tell you that I have no scheme that will prevent our coolies bolting to other Districts or to get back those that have gone, but the scheme I propose and which I will call "Free Coolie Certificate" Scheme, will in my opinion work well and put an end to most of our Labour difficulties, in fact, I feel inclined to say, *all* our Labour difficulties; anyhow I am certain it will put an end to all the petty cases taken to be tried at the Cutcherry with the inconvenience and waste of time, we and our Maistries are put to.

We require some scheme that will prevent coolies getting advances from several Estates in the same year, and also from getting unlimited advances, as I consider this is the cause of many of our coolies bolting to other Districts, they get the money and more than they require easily enough, but when it comes to paying up, they find it impossible to do so, with the result that they are prosecuted or threatened with prosecutions from all round, so that the only loop-hole of escape is another District!

Stop unlimited supply of money to these coolies, who are not used to handling gold, and they will stick to their home-district; the Shevaroy coolie sticks to his old haunts unless he is forced to move!

Some of you will say, "Why has not a similar scheme been tried before?" or, that a similar scheme *has* been tried, but was a failure.

The only answer I can give is, that it has not been tried here, and that the Shevaroy Estates being situated so close to each other, and the Home of our Labour being so near to us, that we have the advantage over other Districts, and everything here points to the Scheme being a success, provided it is given a fair trial.

Some of you will complain of the extra clerical work any such scheme will entail; but I think it will be much less than what we have to do in Cutcherry cases; besides I propose that all the necessary Forms be printed, so that there will be uniformity in action as well.

The Scheme at first sight may seem unworkable, so I want to impress on you that it would not be so in practice, as the only certificates required would be for coolies of two classes wishing to go to other Estates; namely, coolies that have paid up all advances and coolies not under advances, and we know from experience, that there are not many of either class.

The intending absconder, whether under advances or not, knows that he will not be employed on another estate without a certificate; in the former case, he will work out his advances and in the latter will give notice before he makes a move.

The object of the "Free Coolie Certificate" is firstly to prevent the coolie getting advances from more than one estate during the same year, or term of agreement; and secondly to prevent the advanced coolie from working on another estate during his term of agreement.

Now, I say, attain these two objects, and we shall have overcome most of our Labour difficulties on the Shevaroy.

I will now briefly state my scheme.

(1) A coolie not holding a "Free Coolie Certificate" shall not be employed or advanced by a Planter unless that coolie shall have worked regularly for that Planter during the previous six months and you have good reason to believe that that coolie is not under advances to another Estate on the Shevaroy's.

(2) A coolie that has worked off and on during the previous six months for a planter, shall not be employed or advanced, unless he can get two Shevaroy maistries to certify on Form X that he has not worked on another estate on the Shevaroy's during the said previous six months, and unless the Planter intending to employ him has sent copies of the said Form X by Post, to all estates employing maistries of the village of the said coolie, and receives no objection within seven days;

(Days to count from date of despatch Post mark on letters sent and received.)

(3) A coolie that states that he has not worked on the Shevaroy's and therefore not entitled to a "Free Coolie Certificate" shall not be employed or advanced, unless he can get two Shevaroy maistries to certify on Form X that he has not worked on the Shevaroy's and the Planter also intending to employ him, has sent copies of said Form X by Post to all estates employing maistries of the village of the said coolie, and receives no objection within seven days.

(4) A coolie owing any balance of his advance at the end of his term of agreement, desirous of going to another estate, can obtain his "Free Coolie Certificate" if his intending employer is willing to pay up the balance due; but this is not to apply to coolies wishing to leave at any other time of the year.

(Some Planters think it just and fair that a coolie should be allowed to obtain his Certificate by his intending employer paying up the balance due. I do not agree with this, as this system encourages coolies to demand higher advances than they can possibly pay up in a year. Our object should be to keep down advances.)

(5) The application for a "Free Coolie Certificate" must be made out by the Planter intending to employ the coolie, and sent by the said coolie to the Planter on whose Estate he is working or has last worked.

(6) The "Free Coolie Certificate" must not be given to the coolie but sent by Post to the Planter applying for it, if the intending employer does not engage the coolie he must return the "Free Coolie Certificate" by Post to the Sender.

I have done my best to make this Scheme clear, no scheme will suit all in every detail; so I ask you to look at it from a broad point of view, and not to vote against it or any similar scheme, unless you have strong reasons that it will do harm.

BRUCE N. SHORT.

Nagalur,

Shevaroy Hills,

16th January, 1917.

CORRESPONDENCE.

Bonaventure Estate, Nagalur P. O.,
Shevaroy Hills, Salem District,
29th January 1917.

THE EDITOR,
Planters' Chronicle.

Collar Pruning.

Dear Sir,—With reference to an article on "Collar Pruning of Old Coffee" contributed by Mr. Anstead to the *Planters' Chronicle* of 20th instant on p. 35 the following paragraph occurs:—

"Several suckers are allowed to grow and finally these are reduced to the two strongest (to allow for possible Borer losses) or to one."

Personally I think it is very doubtful whether two stems are any more likely to provide a tree free from Borer than one stem is. I have been told that if you leave two stems you have two "strings to your bow." If one is bored you can cut it out and the other remains, but in practice I have not found it so. In the first place, if borer attacks one the other does not stand much chance of escaping, and if it does and the bored stem is cut off you will find each stem has spoilt the other in such a way that you are left with a tree with primaries only growing on one side. It is in fact but half a tree and therefore much more open to the attacks of Borer.

In the second place I have found that any tree with a decent root system and sufficient good primaries, which a selected sucker should have, can bear and will bear with one stem, as much crop as is good for it. If two stems are left there is danger of the tree over-bearing and dropping all its leaves. Then the borer has a grand chance and the last state of that tree is worse than the first.

As I intend to collar prune a field of coffee where borer has been bad, I shall be glad if any advocate of the two stem system who has proved its superiority over the one stem system will give us the benefit of his experience, for, if experienced planters *finally* leave two stems on their trees there must be something to say for the system.

Yours faithfully,
E. L. POYSER.

Note.

In my report the sentence quoted is badly worded; being away in camp I was unable to read the proofs. The word 'finally' should be deleted. In the *first selection* two suckers are left, to guard against possible attack of pests, Borer included, and breakage by weeding coolies. *Finally* the suckers are reduced to one. As Mr. Poyser says it is better to have only one sucker left to form the new tree with a full complement of unimpeded primaries.

I believe the two stem system has been tried in several places and it would be interesting to hear what planters who have had experience with it have to say about it.

RUDOLPH D. ANSTEAD.
Deputy Director of Agriculture, Planting Districts.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 6.] FEBRUARY 10, 1917. [PRICE: AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We publish the Proceedings of the Annual General Meeting of the Central Travancore Planters' Association. Also those of the Nilgiri Planters' Association. In the latter we regret to have to record the death of Messrs. Lechler and Haly, to whose names must be added that of Mr. Pechell, of Coorg, of the Royal Flying Corps.

The Director of the Labour Department gives publicity to the totally inadequate sentences passed on the two Moplahs by the Chickmaglur Court, Mysore, on a charge of having forged the signature of Mr. C. E. Abbott to a certificate. One must have great sympathy with Messrs. Raikes and Hatton Robinson that their zeal, at much personal inconvenience, in their efforts to support the Labour Department, has been so ill requited. The Director also publishes a memorandum for the information of subscribers to the Department, summarising in a few condensed words, very useful and money saving sentences.

Mr. Leslie Rogers, in our correspondence columns, kindly contributes a letter on Terracing and Collar Pruning.

We have been favoured with a complimentary copy from the Mundayam Amateur Dramatic Society of two of their songs: The Mundayam Slogan and Topical Verses on District Events adapted from H. Pelissier's What a Funny World we live in.

We have heard with pleasure that Mr. L. E. Kirwan has been appointed to the command of the Madras Gardeners Corps. He will be very grateful for any assistance given him by the Planting Community. The want of green vegetables has been, and is, severely felt in Mesopotamia, so the creation of this corps will fill a very necessary want. Planters who can help to supply some 150 coolies, including maistries, will greatly assist Mr. Kirwan.

"The Looker-On" a new illustrated paper published in Calcutta has made a promising start and deserves support. Given that support it will be able to develop and add to the popularity of the paper and add to our knowledge of India.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	...	58,165	0 2

DISTRICT PLANTERS' ASSOCIATIONS.

Central Travancore Planters' Association.

Proceedings of the Annual General Meeting of the Central Travancore Planters' Association held at the Hospital on January 27th, 1917 at 10 a.m.

PRESENT:—Messrs. J. S. Wilkie (Vice-Chairman in the Chair), C. A. Mackenzie, J. A. Richardson, H. C. Westaway, R. Tait, A. H. Gerrard, C. A. Asher, J. H. Ellis, W. F. Stephen and W. A. J. Milner (Honorary Secretary). **Visitor:**—S. P. Peckover.

A letter from Mr. Bissett was read regretting his inability to attend the meeting. Mr. Wilkie accordingly took the chair.

1. Minutes of the last meeting were taken as read and confirmed.

2. **HONORARY SECRETARY'S REPORT.**—Mr. Chairman and Gentlemen, —There have been 4 General Meetings and 2 Committee Meetings held during the year. The Association together with other Travancore Associations has been successful in its agitation for the removal of the double export duty on Travancore Tea and has also gained its end in the matter of Timber Values.

During the year under report the district had the honour of a visit from H. E. Lord Pentland, Governor of Madras, which was much appreciated.

KOTTAYAM-KUMULI ROAD.—I understand that the worst portions miles 60—64 are now being metalled and that a Budget grant of Rs.17,220 is available for work during 1092 on miles 61—70. As regards the roads from Pambanar to Vandiperiyar, I understand only Rs.8,000 is available out of which Rs.5,200 has to be paid for metal and the balance is to be spent on new culverts in 58th and 59th miles. These miles will be metalled in 1093. The 54th mile will be metalled this year and metal is now being broken for the 58th and 59th miles.

DISTRICT ROADS.—These are on the whole in better order than they have been before, but I hope will be still further improved and made really first class. This can easily be accomplished if extra funds are available and I am sure extra expenditure on them will well pay us. We have a strong claim too to an increased Grant-in-Aid from Government in view of the extra lakh of revenue Government obtain from Peermade alone from the export duty on tea.

KODIMATHA LANDING.—Work on this was pushed on, but was not started soon enough to finish the landing before last monsoon. There is no reason, however, why it should not be completed early this year. A sum of Rs. 1,000 has been provided in the current budget for this work.

MEMBERSHIP.—The Association consists of 19 members and the acreage is 8912 against 15 members and 6098 acres last year.

CROP.—The Association Crop is 3,690,854 lbs. and last year's crop was 3,832,290 lbs. This year's acreage in bearing is 7,139 against 6,008 acres last year.

HELOPELTIS has been serious on some estates and severe drought and fever among the labour force have had their effect on this year's crop.

ACCOUNTS.—These have been kindly audited by Mr. J. S. Wilkie and are laid on the table. They show a balance of Rs. 507-12-5, which is satisfactory. Under the heading of War Subscriptions, you will see members have subscribed Rs. 1,625 to S. I. P. War Fund. The Subscriptions to L. A. N. I. and P. B. F. total Rs. 150 and 140 respectively.

Before concluding I should like to thank the Chairman and Committee for their support and the former particularly for his advice: being new to the job, I could not have carried on without the benefit of his experience. I wish to thank you, gentlemen, for having elected me as your Honorary Secretary during the year and now beg to tender my resignation."

This was adopted. Mr. Richardson proposed a vote of thanks to the Honorary Secretary for his work during the year which had been unusually heavy on account of the correspondence necessitated by the export duty.

3. All correspondence since the last meeting were read.

Read letters from Mr. R. P. Roissier and Mr. W. H. G. Leahy resigning membership of the Association. This was noted.

Read letter from Madura Co., re backwater towing. This was noted and the Honorary Secretary was asked to write and inform the Madura Co., that members considered the rates quoted in their circular letter reasonable.

Read letter dated 15th January, 1917 from the Secretary, U. P. A. S. I. regarding the Scientific Department.

Resolved "that we await the decision of the Secretary of State and in the event of this not being favourable that the scheme be postponed till such time as the Government of India are in a position to sanction the expenditure."

Read letter dated 8th December from the Secretary, U. P. A. S. I. regarding the Indian Industrial Commission. The meeting approved of the Honorary Secretary's reply leaving the matter in the hands of the Council of the U. P. A. S. I. and the representatives appointed to attend the sitting of the Commission in Madras.

4. ACCOUNTS.—Proposed by Mr. Westaway and seconded by Mr. Tait "That the accounts as rendered be passed."—Carried.

5. EXPORT DUTY.—Read letter dated 16th January from the Chief Secretary to Government and the Honorary Secretary was instructed to reply that this Association will be very pleased to send Government the required figures as far as estates in the Association are concerned, but regrets it cannot supply figures of non-Association Estates.

The Honorary Secretary was also to ask Government to send us periodical reminders in good time before the half-yearly statements are due and to point out that this will entail considerable work and hope Government can supply sufficient printed forms for the purpose.

Read letter from Chief Secretary to Government dated 19th December stating that the Government of Travancore has been pleased to exempt tea for consumption in British India from payment of export duty and that the Chief Secretary to Government would let the Association know later the exact date at which this arrangement was to come into force. It was noted that the refund of all such duty already paid would be made.

The meeting considered that the Sri Mulam Delegate should make a point of interviewing the Dewan and Excise Commissioner on the matter with a view to getting the proposed arrangement brought into force *without further delay*.

As regards the declaration required from the consignee the delegate should find out to what official this should be sent. It was presumed that the exporter's declaration alone will be sufficient to get tea for consumption in British India passed free of duty at the Travancore frontier and that the consignee's statement was only required as a check. The delegate was also requested to press for an *early refund* of all duty on this class of tea already paid and also for a refund of the double duty paid on Travancore Tea exported from British Indian ports, *as no information had been received by the Association as to when or how any refund was to be made.*

The following resolution was proposed by Mr. Westaway, seconded by Mr. Tait and carried unanimously :—

"That this Association wishes to place on record its hearty vote of thanks to Mr. Richardson for all he has done in connection with this question."

6. SHIPPING FREIGHTS.—The Chairman of the U. P. A. S. I.'s letter of 20th December was read and all its most interesting contents very carefully considered.

It was resolved "That this Association support the S. T. A's resolution *re* freights and recommend that the matter be taken up by the Council of the U. P. A. S. I. at an early date."—Carried.

7. LABOUR RULES AND RATES.—With reference to a matter brought up by Mr. Ellis the meeting asked this gentleman to write to the Honorary Secretary and put the matter before him when the Honorary Secretary will send the correspondence to Mr. A. Martin.

8. SRI MULAM DELEGATE.—Mr. Tait kindly reconsidered his decision, so no second election of delegate was necessary.

Proposed by Mr. Richardson and seconded by Mr. Mackenzie :—

"That the Association allow the delegate Rs. 100 for his expenses."

INSTRUCTIONS TO DELEGATE.—Resolved: "That the Committee instruct the delegate on his subjects."

9. FINANCE AND SUBSCRIPTIONS.—Proposed by Mr. Westaway and seconded by Mr. Richardson: "That the subscription for 1917 be at the rate of 3 annas per cultivated acre."

10. ELECTION OF OFFICE-BEARERS.—On a ballot being taken the following officials were appointed for 1917 :—

Chairman	...	Mr. J. S. Wilkie.
Vice-Chairman	...	Mr. H. C. Westaway.
Honorary Secretary	...	Mr. W. E. Stephen.
Committee	{	Mr. C. A. Asher.
	{	Mr. C. A. Mackenzie.

With a vote of thanks to the Chair the meeting closed.

(Signed) W. A. J. MILNER,
Hony. Secretary.

Nilgiri Planters' Association.

*Proceedings of a General Meeting of the Nilgiri Planters' Association
held on Monday, 22nd January, 1917.*

PRESENT:—Mr. J. S. Nicolls, in the chair; Mr. L. Gerrard Rogers, Honorary Secretary; the Hon'ble Mr. E. F. Barber, Mr. A. S. Dandison, Mr. Robert Stanes, Mr. James Stanes, Mr. W. B. deCoursey, Mr. Bake, Mr. A. K. W. Downing, Mr. J. Harding Pascoe, Mr. J. W. Bisset, Mr. A. N. C. Grove, Mr. J. B. Leslie-Rogers, Mr. W. A. Cherry, Mr. E. Sydendam Clarke, Mr. W. C. Deane, Mr. D. Elkington, Mr. Eagan, Mr. L. F. Lake and Mr. George Oakes. **Visitors:**—Mr. Bisset from Meppadi, Mr. Jones, Superintendent of Police, and Mr. R. D. Richmond, District Forest Officer.

193. PROCEEDINGS OF LAST MEETING.—The proceedings of the last meeting were taken as read.

ANNUAL REPORT.—The following annual report, read by the Honorary Secretary, was adopted:—

"Mr. Chairman, Gentlemen,—I beg to submit the Annual Report and accounts for the year ending 31st December, 1916.

I am pleased to state that we have increased our subscribing acreage from 16,621 in 1915 to 19,009 in 1916. This I believe to be the largest acreage represented by this Association to date. It is comprised as follows:—Tea 9,519, coffee 9,183, rubber 275 and sundries 32.

There have been 4 General Meetings and one Extraordinary General Meeting during the year, at which the average attendance was 18.

The accounts are before you and have been audited by one of your members. Although the expenditure this year has been considerably higher owing to increased Delegates' fees and other items, the balance in hand of Rs. 435-8-4, after deducting the 1/4th subscription due to the U. P. A. S. I. is satisfactory.

S. I. P. B. F.—I must thank members for the donations I received this last year, which with subscriptions amount to Rs. 440.

WAR FETE.—A number of our members gave liberally to this Fête either in produce or in cash.

The weather this year has been favourable for our industry, and coffee especially has done very well.

Many matters were discussed during the year. Our representations to Government through the U. P. A. S. I. were successful in having withdrawn the Income-tax on tea estates employing modern machinery.

SCIENTIFIC DEPARTMENT.—The scheme for the establishment of experimental stations has been formulated and the proposal to start some of them at once is before the meeting to-day.

PLANTERS' LABOUR ACT.—This Association combined with the Wynaad Planters' Association, five opposing the proposed amendment to this Act and we hope that our joint representations will meet with satisfactory results.

PLANTING MEMBER.—The Hon'ble Mr. E. F. Barber was unanimously elected by our Association and again represents our interests in the Legislative Council. An amendment to the rules governing the election of the Planting Member will be put before you to-day.

CONFERENCE OF COFFEE PLANTERS.—The initial meeting was held at Bangalore last June. It is hoped these may be held annually.

SMALL FOREST RESERVES AND WASTE LAND RULES.—These subjects have received our attention during the year and our views have been put before the Government.

ROADS AND COMMUNICATIONS.—This subject was discussed at one of our meetings and the general opinion was that the roads throughout the District had deteriorated. We trust this will be remedied this year.

RULES OF ASSOCIATION.—I have found the business of the Association is hampered by one of the rules and should like to see the offending clause deleted for the benefit of my successor. The matter is on the agenda to-day and will be dealt with later.

I regret that during the past year this terrible war has claimed more of your fellow planters from this district. I refer to the deaths of Mr. Lechler and Mr. Haly. The latter had only been a short time in the District when war broke out.

Another member of this Association, Mr. S. Rowson, has joined H. M.'s Forces since our last Annual Meeting. In closing my remarks I should like to thank our Chairman for his co-operation and help in carrying on the work of the Association while I have been the Honorary Secretary. I must now ask you, gentlemen, to pass my accounts if found correct and accept my resignation."

194. CHAIRMAN'S ADDRESS.—The following remarks were then made by the Chairman:—

"Gentlemen—I have had the honour of addressing you as your Chairman for three consecutive years. During that time, I have attended all your Meetings, excepting one General Meeting and one Extraordinary General Meeting, both during the past year, my absence from them being due to unfortunate circumstances. I thank you for the congratulations you voiced through your Honorary Secretary on my wife's safety when the *Arabia* was torpedoed by our enemies—those servants of hell. I will also take this opportunity to thank my co-delegates at the U. P. A. S. I. Annual Meeting in congratulating me on my election as Chairman of our parent body. I fully recognize my responsibility and the honour conferred on me by my brother planters and I mean to do my best in their interests.

I can only wish that to-day it had been my privilege to congratulate you and the world, that we and our brave allies had gained our objective in this war, and hence forward there would be peace and good will amongst men. But there is much to be obtained before that object is secured and we all will have to make our sacrifice in one way or the other. Those who have already given up their lives expected us to place on their graves the wreath of victory and to each of us there is a way open to help. May God lead us along the right path. Two planters from our District have gone never to return, but their memory will live and be honored in their old district.

You have heard your Honorary Secretary's report and the accounts have been placed before you. We are due to him a vote of gratitude for the keen interest he has taken in the Association's affairs and for the satisfactory cash balance. Whether any of this shall be given to the support of worthy War Funds is for you to decide.

SCIENTIFIC DEPARTMENT.—I fear the scheme of the Experimental Gardens and increase in the Scientific staff has not matured as soon as you expected, but I feel certain Government will in due course give us all we were led to expect.

COFFEE STEALING PREVENTION ACT.—The views you expressed at your Extraordinary General Meeting combined with those of the Shevaroy Planters' Association were duly presented to Government.

INDUSTRIAL COMMISSION.—The questions have been answered and the Hon'ble Mr. E. F. Barber has kindly consented to give oral evidence in Madras on the 27th instant. He is always willing to do something.

FREIGHTS.—This matter, the seriousness of which I fully recognize, is before you to-day. Supply and demand, I fear, is a hard problem to face and a bad one to meddle with. The Imperial Government is taking what steps it can to put matters straight, but I believe we shall eventually find salvation rest in our hands, and the power of the U. P. A. S. I. should be made more manifest.

FINANCIAL SITUATION.—This may be at the present moment a sore trouble to many of you. You have all probably read the Press Communique issued by the Financial Secretary of India. I think the position summarised is 'What can we do to relieve the situation.' You have a lengthy agenda before you and I will not occupy your time any longer.

Thank you for the courtesy you have always shown me as your Chairman and your Honorary Secretary for the clear way he has put matters before me when he required my advice."

VOTE OF THANKS.—Mr. A. K. W. Downing proposed a hearty vote of thanks to the Chairman and Honorary Secretary for the successful manner in which they had conducted the affairs of the Association which was unanimously carried.

Mr. Nicolls, on behalf of the Honorary Secretary and himself, thanked the members of the Association for their remarks of appreciation.

195. FREIGHTS.—Read and considered letter from the Chairman U. P. A. S. I. regarding Freights.

Resolved that this meeting adopt the resolution of the South Travancore Association in this connection.

196. CORRESPONDENCE.—WASTE LAND RULES.—Read and recorded letter from the Hon'ble Mr. E. F. Barber to the effect that the question of the revision of the waste land rules is engaging the attention of Government.

ACACIA DECURRENS BARK.—Read letter from the D. F. O. intimating that the Chrome Leather Company at Pallavaram will pay Rs. 36 per candy of 500 lbs. for *Acacia Decurrens* bark delivered at Pallavaram. The Hon'ble Mr. Barber remarked that he hoped members would not accept so low a price, as from enquiries he had ascertained that the price of this bark was £75 per ton in London.

Mr. Sydenham Clarke said he had accepted the price as he could not get anything better in Madras.

ENGINE SPARKS.—Read and recorded letter from G.T.M., S.I. Railway regarding engine sparks.

197. ROAD AND WATER RIGHTS.—With reference to a suggestion from Mr. P. Beaver that the petty assessments on road and water rights, which are payable yearly, may be accepted for five years in advance or that a reminder may be sent when these sums become due, Mr. Richmond, the District Forest Officer, stated that he meant to send one reminder in March of each year, which the meeting recorded with satisfaction.

198. ELECTION OF PLANTING MEMBER.—Read and recorded letter regarding amendment of rules governing the election of Planting Member of Council.

199. EXPERIMENTAL PLOTS.—Considered U. P. A. S. I. proposal to start two experimental plots. Proposed by Mr. Harding Pascoe, and seconded by Mr. A. K. W. Downing "That under present conditions it is agreed that the starting of experimental plots be postponed until the Secretary of State's sanction has been received."

200. N. P. A. RULES.—Proposed by the Honorary Secretary and seconded by Mr. Downing that rule 23, which runs as follows:—

"Any Resolution that has been passed at any Meeting, must be confirmed at the next subsequent Meeting, after which no further discussion on the subject shall be allowed for six months from the date of the Meeting at which it was first passed," shall be amended so that this rule may stop at "subsequent meeting," and the rest of the rule be deleted.—Carried unanimously.

201. PROTECTION OF ROCK BEES.—Read letter from the District Forest Officer, Central Coimbatore, regarding the protection of the large Rock Bees which are believed to be the chief pollen carrying agents in the fertilisation of coffee blossoms stating that the Forest Department is prepared to exclude defined areas from the annual leases to be given to the contractors for the collection of honey and further asking for a list of areas which Nilgiri planters would like excluded to be sent to him by the 28th February. It was resolved that the members of the Association send in a list of such areas with boundaries to the Honorary Secretary as soon as possible.

202. OFFICE-BEARERS.—The following office-bearers were elected:—

CHAIRMAN.—Mr. A. S. Dandison, Vice-Chairman Mr. L. A. Gerrard Rogers, Honorary Secretary, Mr. J. B. Leslie Rogers.

COMMITTEE.—Mr. E. Sydenham Clarke, Mr. Robert Stanes, Mr. J. W. Bisset, Mr. J. Harding Pascoe, Mr. W. A. Cherry and Mr. D. Elkington.

The meeting terminated with a vote of thanks to the Chairman and to the Collector for the use of the room and expressed regret that Mr. Knapp was unable to be present.

(Signed) J. S. NICOLLS,

Chairman.

(") L. A. GERRARD ROGERS,

Honorary Secretary.

LABOUR DEPARTMENT.

The 2 Moplahs who got 12 months imprisonment after trial in the Coimbatore District for victimizing Estates on the strength of a forged certificate purporting to be signed by Mr. C. E. Abbott, were arrested on release for a similar offence, at the instance of Mr. H. W. Raikes. They were tried at Chickmagalur, Mysore State, and although the crime was just as heinous, and the previous conviction was recorded against them, the punishment inflicted was only 15 days imprisonment and a fine of Rs.20. They were released on expiry of the sentence, without recovery of the fine or any further imprisonment in default. The expenses incurred in this case from first to last have been great. Mr. Raikes went all the way to Palghaut and took his Writer with him for purposes of identification in the first instance. His Writer made a second trip to Pollachi. Mr. Hatton Robinson went at great trouble and cost to Chickmagalur. Our Chairman had to visit Court to swear to the signature being a forgery. I do not take into account minor witnesses, or the immense trouble taken by the late Mr. Day and the work put in by his subordinates. It is most disheartening after all this to find on second conviction the men are let off with a trivial punishment in the Mysore Courts. I express my thanks to all those who co-operated with the Department in trying to save the Planting Community from being the victims of such scoundrels and their like, and especially again to Mr. Raikes and Mr. Hatton Robinson. I must regret that the inconvenience and expense to which they were put has resulted in such meagre satisfaction.

**Memorandum for the information of subscribers
to the Department.**

Telegraphic enquiries about Maistries, Kanganies, and others should be resorted to as seldom as possible. When unavoidable, the following words may be used. They are taken from the A. B. C. Telegraphic code 5th Edition.

IMBUITASSA.....What information have you of.....

KALKA.....We know nothing of.....

NASALIS.....The latest news we have of.....is.....

NAUSCENTIA.....Have nothing to do with.....

ECUOREA.....I have engaged.....

The above applies to all Offices in charge of European Officers of the Department only.

AYLMER FF. MARTIN,
Director.

INDIAN INDUSTRIAL COMMISSION.

The United Planters' Association of Southern India.

Written evidence submitted by the Chairman Mr. J. S. Nicolls.

FINANCIAL AID.

We are of opinion that as a whole there is no need for direct Government aid for industries in this country but they should be fostered by indirect aid. The industries which require most attention are those which have agriculture as their direct basis and some such industries are already established strongly, e.g., Cotton and Jute. Indirect aid should take the form of improved railway communication and shipping facilities and of scientific aid in research.

Q. 1.—Difficulty in raising on temporary Land Tenure.

SUGGESTIONS.

Difficulty in obtaining financial assistance from Indian Banks on security of crops. Improved Land Tenure.

One Act safeguarding the interest of tenant as to improvement, e.g., Nilgiri Wynaad has no Act applicable.

TECHNICAL.

Q. 15.—The Scientific Department as concerned with the United Planters' Association of Southern India.

Q. 16.—Recognition of what scientific research has done for Sugar, Cotton and other industries.

Q. 17.—When asked for to be given as freely as possible.

Q. 18.—As far as our own industries are concerned we would have no objection to a full disclosure, but we recognise a difficulty that might occur in the matter of trade secrets, being given away in the instance of Government experts obtaining and publishing any special methods or secrets of manufacture in other lines of merchandise.

Q. 22.—Kew has given valuable aid and information in many instances.

Q. 25.—Yes: Survey of land suitable for planting should be made and such knowledge should be easily obtainable by an intending investor.

Q. 26.—We recognise that the organisation could only be dealt with by Government servants with practical experience. The resources of the country should be obtainable from a Government department either in England or this country, at the present time it is impossible to obtain any correct information.

ASSISTANCE IN MARKETING PRODUCTS.

Q. 34.—We believe that good would accrue from such appointment provided representatives were fully qualified and able to devote their whole time in furthering the development of the industries they represent.

Q. 35.—We can quite follow that instances might occur in which such appointment might become necessary.

Q. 38.—The system of purchasing Cinchona and other commodities available in the country from European markets to the discouragement of the Indian producer.

LAND POLICY.

Q. 41.—Yes. There is nothing to be said against Government title. But in Panting districts the tenures are so various that it is next to impossible to tell the prospective investor how he will hold land. The intervention of the Indian landlord complicates matters. There are thousands of acres of land suitable for planting that might be and would be taken up were the titles not difficult to prove. The only suggestion we can offer is to sort out the titles so that any uncultivated land which is not the adjunct of a cultivated estate should pay land tax. Further we believe such a tax would go far to prove ownership. But we see the possibility of such a policy, being taken evil advantage of by enterprising men finding it profitable to pay a trifling acreage rent to establish a title to land useful for planting.

Titles of all holdings should be known to a Government department either in England or this country. At the present moment it is impossible in parts of India to obtain a sound title, be the investor as careful as he can be. After purchase he spends considerable amount of money and time in defending his title. Names and positions of boundaries, hilltops, and streams are juggled in the most marvellous way.

OFFICIAL ORGANISATION.

We are in favour of a Director of Industry working with an Advisory Board, but he should be a provincial officer for it is certain that many of the questions that crop up can only be dealt with sympathetically by a man with local knowledge. The Director should work in close touch with the Director of Agriculture and should deal with all agricultural matters except the improvement of agricultural methods which would be the duty of his colleague, the Director of Agriculture.

Q. 58.—In regard to the Advisory Board from our point of view it should have representatives of Native States on it. We are politically one body and we cannot dissociate ourselves from our brothers in the Native States. Geographically the planting industry of South India is one and our interests in development are identical.

TECHNICAL AND SCIENTIFIC DEPARTMENTS.

As far as Agriculture is generally concerned we have the Agricultural College and Research Institute, but this is woefully undermanned and the expenditure thereon is but a fraction of what might be spent profitably. Our own position as planters is that we are far behind our neighbours in Ceylon, Java and the Straits in the matter of advisers.

Q. 63 to 81.—Our views have already been fully put before the Government, regarding the development of our Scientific Department.

CERTIFICATES OF QUALITY, ETC.

Q. 89.—We are of opinion that Government should insist upon a certificate on all imported food stuffs into India from outside and sold at a lower rate than it costs to produce a sound article in India.

Q. 90.—A system similar to that ruling in the United States of America on imported food stuffs.

Q. 91.—Although in most instances adulteration probably happens after products have left the producers' possession and been landed in those of the retailers in foreign markets, we are of opinion that adulteration of coffee and tea does take place in India itself and we think that severe penalties should be imposed on detection.

REGISTRATION OF PARTNERSHIPS.

Q. 96.—We are of opinion that it has become an absolute necessity and more than desirable to protect the Empire against the introduction of alien monopolies working to the detriment of the Empire and its Colonies.

ROADS, RAILWAYS AND WATER WAYS.

Q. 97 to 101.—Our views on this subject have been completely and fully put before Government and we would emphasise the necessity of a harbour on the west coast capable of shipping in all months of the year at the termination of one of the railway projects put forward.

HYDRO-ELECTRIC POWER SURVEYS.

Q. 102.—Inquires have been made on one or two schemes but no practical results have followed, but we believe that there are great possibilities in the Madras Presidency of development in this line.

Seq.—Mysore Government Messrs. James Finlay and Company, projects, we think, further investigation should be made.

GENERAL.

Q. 110.—Covered by our answers—which are purely in the interests of the agricultural development of the country—

Scientific,

Facilities of Transport and Shipping.

Land Tenure,

Medical Aid.

NOTE.—We are of opinion that Government might benefit the employers of labourers, and the health of the present generation and of those to come, by allowing purchase of medical stores on easy terms—e.g., the system now in vogue in Ceylon to employers of labourers on coffee, tea, rubber, and other estates—and by developing grant-in-aid hospitals or dispensaries.

ORAL EVIDENCE.

By Sir R. N. Mookerjee :—The U. P. A. S. I. used to have Indian members, but they did not now support it and had dropped out. Witnesses did not think that direct aid from Government was necessary to induce people to invest money in industries, but it would be a step in the right direction if indirect help were given. If this were done, Europeans would certainly invest capital in industries. Witnesses thought that this ought to be enough to attract Indians also. The planting community of Southern India had often to resort to Ceylon for advice regarding diseases of plants, etc., this should not be the case and it was the duty of the Imperial Government to arrange for giving planters such scientific advice as they might need. Witnesses were in favour of developing hydro-electric schemes near places where industries existed.

By Mr. Chatterton :—Water power was being used wherever available, but it was often difficult to obtain suitable factory site and outlet for trade, etc., where water power was available. Witnesses wanted the Mangalore-Ariskere Railway in the interests of the planting community. The output of rubber in South India was increasing very rapidly and ought to be sufficient for a factory to be established.—*Madras Mail*.

CORRESPONDENCE.**Terracing and Collar-Pruning.**

THE EDITOR,

Planters' Chronicle.

Dear Sir,—I have read with great interest the notes published by the Deputy Director of Agriculture in your issues of the 6th and 20th January. In the former issue he describes the method of terracing recently carried out on an estate in the Wynaad. The method is thoroughly practical, and resembles the plan adopted on the hill plantations of Northern India, and very extensively practised in terracing village lands on the steep slopes of the Himalayas. The only thing I am unable to understand is why the terraces should always be only five feet wide. On very steep slopes, and in terracing existing old tea and coffee this width would hold good, but why should not terraces on newly opened land be made as wide as the slopes will allow? Instead of one row of plants, the aim should be to secure as many rows as possible on flat land, as the larger the terrace, the more economical will be all subsequent operations. The Himalayan villagers, who have neither the money nor the resources of the modern planter, yet consider it worthwhile to dig out the hill sides, and build up extensive embankments so as to secure the largest possible areas for good cultivation. If they can do this difficult work with their slender means, surely the planter should not neglect the practical example they set us of how to get the greatest benefit out of our far less steep lands in these parts.

This brings me to an inexplicable remark in the said notes under the head of cost of cultivation, which runs as follows:—"When the cost of a forking is taken off this, as the block being terraced does not require forking, the terracing of old tea will be seen to be very cheap." There appears to be something contradictory here, as the two main objects of terracing steep land, are first and foremost to enable one deeply to stir up the soil, and secondly to retain this loose soil in heavy rain. When terracing is done, especially on virgin land, a lot of dead and unproductive earth is brought up, which can only be made to nourish the plants after much intelligent cultivation, in the form of constant stirring, aeration, and exposure to the physical and chemical changes effected by sunshine, heat, cold, rain, etc. If deep cultivation is given up, and forking is about the best form of it, then it must necessarily follow that the improvement of the soil is stopped just when it requires it most, and the principal purpose for which terracing is practised is rendered nugatory. Terracing connotes high cultivation, and if this is neglected, it is mistaken economy to go in for wholesale terracing merely to prevent wash in the rains, as this can practically be avoided by many other simpler and cheaper methods. I am a strong advocate of terracing sloping and especially steep land, and have, for some years past both personally and in the press, been urging the necessity of such work, after noticing the enormous soil denudation going on in the hill plantations of Southern India, and the resultant absence of adequate cultivation. Proper cultivation can only be carried out on comparatively level ground, and to ensure the retention of soil terracing is an absolute necessity. But such work would mislead many into wasteful expenditure, if it once became a fixed idea that terracing does not necessitate due cultivation, and is only carried out to avoid wash.

In your issue of the 20th January there is another very interesting note on collar-pruning of old coffee. Though agreeing in the main with the writer, I regret I am unable to see eye to eye with him when he advocates the entire removal of shade simultaneously with the cutting down of the coffee. First that old coffee has hitherto been accustomed to shade, and that when you cut the plant down to near the roots, you subject it to the severest shock it can be called upon to bear. Secondly if you add to this a sudden exposure to blazing sunshine and strong wind, I think it will be admitted that the risk of retarding subsequent healthy growth, and even of killing off the whole plot, is very obvious. Old coffee could not always be counted on to recover from two such shocks to its already impaired vitality. There may be some plots specially favoured by climatic or soil conditions, where such drastic measures may possibly succeed; but with average exhausted coffee, it would be safe betting that the removal of all shade just at the collar-pruning period would either kill off the bulk of the plants, or at any rate seriously retard their regrowth to a profitable condition for many years, till in fact the newly planted shade trees had re-established normal conditions.

Further the method that has been advocated requires not only the removal of all shade, but also the burning of all litter, loppings, and undergrowth all over the pruned area. Now it is well-known that if two similar plots of good forest land are planted up with tea or coffee, the plants are invariably quicker in growth, healthier, and bear earlier crops on the land where the jungle growth is not burnt, but cut out, removed and burnt outside the land to be planted. Burning over the future planting area may be a cheap and easy method of clearing large plots of land, but it has always the serious disadvantages of destroying valuable vegetable matter and humus, and to a certain extent of killing off the micro-flora that are so beneficial to the soil.

The whole system advocated in the notes referred to is in my opinion too drastic, and in the wrong sequence of procedure. The two processes that are essential to safe collar-pruning are first, that the plants should be well nourished with manure and good cultivation prior to cutting down. This operation being followed at once by liming and deep forking the ground, burying all mulch, weeds and coffee leaves, under the turned over soil, and not in separate pits. Secondly that the shade the coffee has hitherto been accustomed to should be removed very gradually to ensure sufficient time for the young coppice shoots to harden and conform to changed conditions. In fact there is no practical reason why there should not always be suitable shade over a collar pruned field. The undesirable shade trees should not be left till collar pruning is necessary, as they should be gradually but systematically cut out year by year, and replaced at once by the best selection of trees of the leguminous family.

J. B. LESLIE-ROGERS.

Ootacamund, 5th February, 1917.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 7.]

FEBRUARY 17, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, has returned from Pusa where he attended a Conference of Mycologists and Entomologists. He leaves again early next week on an extended tour to the High Range and will attend the Meeting of the Local Committee of the Rubber Growers' Association at Calicut on March 31st.

We publish the Proceedings of the Annual General Meeting of the Wynaad Planters' Association. The Honorary Secretary drew attention to the enormous freights that are being paid from the Malabar Coast, drawing a comparison with those paid from Calcutta. We are under the impression that these rates cannot be maintained much longer, as the existing contract entered into will shortly run out, when the shipping lines will increase them very considerably; His review of labour matters especially clause 35 of the Planters' Labour Law is highly interesting and instructive.

We continue our extract from Tropical Life on Growing Coffee for profit.

The Indian Planters' Gazette supplies us with an article on the Labour Question in Ceylon. It appears that if that thorny subject is to be settled in Ceylon by legislation it will have to be effected by legislating against employers not employees.

We are obliged to a subscriber for the very interesting pamphlet on Rubber in Mozambique.

We have received a Bulletin on Coffee in Mysore written for the Mysore Economic Conference by Mr. C. H. Browne. It is an interesting resume of the Industry from the beginning and is hopeful of the future. It is written in his own pleasant manner.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	58,165	0	2
Mr. C. J. Hayward	...	...	75	0	0
Mr. H. L. Pinches	...	...	40	0	0
Collections from the Coolies of Mayfield Estate	...	...	80	0	0
Total	...	...	58,360	0	2

DISTRICT PLANTERS' ASSOCIATIONS.**Wynaad Planters' Association.**

Proceedings of the Annual General Meeting held at Meppadi Club on February 7th, 1917.

PRESENT.—Messrs. Blackham, Cheeseman, Copland, Gauld, Gillatt, Leslie, Lobban, Macbain, Macleod, Malcolm, Mackay, Powell, Vernede and C. E. Abbott, Honorary Secretary.

MR. MACLEOD IN THE CHAIR.

2290. **PROCEEDINGS OF LAST MEETING.**—These were confirmed.

2291. **PROPOSED DIVISION OF THE MALABAR COLLECTORATE.**—(See 2288.) Read letter from Honorary Secretary to the Collector of Malabar.

2292. **MR. ANSTEAD AND MR. MCRAE'S VISIT.**—These gentlemen have written to thank members for their hospitality.

2293. **FREIGHTS.**—Read U. P. A. S. I. circular 64/16 of December 20th. Resolved that the South Travancore resolution be adopted. But this Association questions whether the Indian Tea Association (London) would be the best body to take the matter up, and thinks it might be preferable to apply to the Government of India through the Government of Madras, and to ask the Ceylon Planters' Association if they will not take similar action. We would emphasise the disadvantage South Indian and Ceylon Planters are at compared with those who ship from Calcutta and Chittagong.

2294. **ROADS. ROAD 35.**—Read letter from Mr. Walker complaining of the state of this road between Sultan's Battery and Noolpoya; read Honorary Secretary's letter to District Board Engineer and his reply stating that the matter is being attended to.

CALICUT TO MYSORE FRONTIER.—Kalpatty Sultans Battery section. Members who have been recently using this road stated that practically no repairs have been done on this section. No attempt appears to have been made to spread the metal which has been lying stacked on the road side for many months except on a few furlongs. The surface is in a very bad condition especially from mile 50 onwards.

GHAUT SECTION.—A small bridge above Lower Tagerapady requires repair. The Honorary Secretary was instructed to address the Executive Engineer West Coast Division.

ROAD 31.—Attention was called to the dangerous state of the culvert on mile 2/4 on this road. The bridge at mile 4/3 between Perrengodda and Achoor is also in a dangerous condition.

VELLARA MULLA ROAD.—The bridge at mile 3/7 is urgently in need of repairs. The Honorary Secretary was instructed to address the District Board Engineer about these complaints.

2295. **SCIENTIFIC DEPARTMENT.**—Read U. P. A. S. I. circular 63/16. It was resolved that this Association considers it inadvisable to proceed with the Experimental Stations at present.

2296. **INDUSTRIAL COMMISSION.**—The Association wishes to thank Mr. Nicolls and the Hon'ble Mr. Barber for the trouble they have taken in this matter.

2297. **VAYITRI MAGISTRATE AT VELLARAMULLA.**—Read letter from Mr. Macbain to the Honorary Secretary, who stated he had seen the Magistrate Mr. Swaminatha Iyer who is willing to visit Vellaramulla once a month.

2298. **FIRE INSURANCE.**—Proposed by Mr. Malcolm seconded by Mr. Gillatt and carried unanimously. That this Association ask the U. P. A. S. I. to take up the matter of the Insurance Companies with the

object of getting a reduction of rates of premium on tea factories which this Association considers are unnecessarily high and do not compare favourably with Ceylon rates.

REPORT AND STATEMENT OF ACCOUNTS.—The Honorary Secretary read his Annual Report.

ANNUAL REPORT AND STATEMENT OF ACCOUNTS.—Mr. Chairman, I beg to submit my Annual Report and the statement of accounts for 1916. Seven New Members have joined the Association during the year. We have lost three former members by death, Mr. Guard, Mr. Huddleston and Mr. Day. Another former member Lieutenant J. C. Stewart of the 32nd Light Cavalry was killed in Mesopotamia. Four Members have left the District. We now have 30 subscribing members and 10447 acres. There have been 8 general meetings during the year and 1 special General Meeting. These have all been well attended.

CROPS.—The yields of neither tea nor pepper were as good as in 1915. Prices continue satisfactory, but the question of freight is serious.

ROADS.—This is a subject that was taken up energetically with good results by my Predecessor Mr. Whitton. We have had few complaints during the past year. The District Board Roads generally have been kept in good order. The Public Works Department Road from Calicut to Vayitri which includes the Ghaut has had a great deal of excellent work put into it. The section from Chundale to Sultans Battery is now being put in order. We have recently had complaints from more than one quarter about the District Board Road from Sultans Battery to the Nilgiri frontier at Noolpoya. The Engineer has been addressed on the subject. We have to thank the President of the District Board for temporarily closing the Tambracherry Ghaut to timber traffic. This was done on the suggestion of our Representative on the District Board. It enabled the repairs to the section to be carried out satisfactorily.

POSTS AND TELEGRAPHS.—We have had a good deal of correspondence on various comparatively small matters which however gave a great deal of local inconvenience. The authorities have in the end done all we asked them to do for us. The Sultans Battery Telegraph Office has been opened for traffic. The Meppadi-Cherambadi connection has been restored. This was cut in a fit of ill advised economy which caused most unreasonable delay, telegrams to Nellakotta sometimes taking 3 days in transit. At the beginning of January the former hour of closing the mail at Meppadi was restored.

POODAPADY HOTEL.—Two grants of Rs.50 were made for repairs to the Hotel during the year. The place has required thorough doing up for a long time. Mr. Gillatt kindly undertook to have an estimate prepared and to see that the work was carried out properly. On his recommendation Rs.248 was sanctioned by the Association and it is hoped that we shall not be called on to disburse any more money for some time except for thatching. The Association I may mention owns the building and the land on which it stands.

SCIENTIFIC DEPARTMENT.—The Madras Government proposed to organise the U. P. A. S. I. Scientific Department by the appointment of a Mycologist and the establishment of Experimental Stations for Tea, Coffee and Rubber. This plan has been indefinitely postponed by the war. A proposal has been made to proceed with laying out the experimental stations with U. P. A. S. I. funds. The general opinion however appears to be that without a positive guarantee from Government that the whole scheme will be carried through at a reasonably early date it would be a mistake to begin this work as the stations might be left without any superintendence for an

indefinite time. Mr. Anstead and Mr. McRae made a tour in Wynaad in November last. They were present at the Association Meeting on November 22nd and both delivered very interesting addresses.

PEST ACT.—We accepted draft of this Act after some discussion. Mr. Chadwick, the Director of Agriculture's explanation at the Bangalore Meeting in 1913 of how it would be worked in Planting Districts appears quite satisfactory.

FREIGHTS FROM THE MALABAR COAST.—This subject has been fully discussed and it is only to be hoped that the representation of our case will do good. The Clan Line are taking tea from Calcutta at 47/6 for 50 c ft. We are being charged 245 from ports hundreds of miles closer to London. We are now asked to sign an ironclad contract binding us to ship only by the Clan Line at this rate, or any other rate that it may be increased to at a month's notice, in consideration of a rebate of 10% to be paid at some future time. We are asked to admire the conduct of the Directors in running such an excellent service in spite of all dangers from submarines. We give our wholehearted admiration to the Officers and crews of the British Merchant Service who carry on their work at the imminent risk of their lives—a risk that I understand the owners of at least one great company consider amply compensated by an increase of 15% in pay. But we find it rather more difficult to admire the owners themselves who are charging us 800 per cent. more than we paid before the war when they had German boats competing with them.

LABOUR MATTERS.—We have suffered considerably from shortage of coolies during the greater part of the year. In many cases though advances have been increased, gangs have come in much later and in fewer number than contracted for. We have also suffered a good deal of anxiety from the threatened action of Government. Early in the year we were informed by the Collector that Government intended to amend clause 35 of the Madras Planters' Labour Law by giving the Magistrates trying cases discretion as to whether they should order the Maistry or Labourer, after he had been once convicted, to complete the performance of his contract or not on pain of further imprisonment. This led to a great deal of correspondence which I need not go through but will merely quote the resolution passed by us on March 22nd.

"This Association considers that section 35 is a vital one, and that
 "no case has been made out for its amendment. It considers
 "that it is a decided deterrent to deliberate fraudulent breach
 "of contract and that it has not been misused."

To this day we have not been informed what the Madras Government proposes to do in the matter.

The next thing that happened was that an order issued by Mr. Innes but hitherto in abeyance was suddenly enforced in October. The Vavitri Magistrate was instructed to inflict fines without any alternative sentence of imprisonment if a prisoner had been previously convicted. He was then to refuse to take any further action on the ground that "as no imprisonment was awarded no further direction can be issued." Moreover no security for the payment of the fine was demanded and members assured us that no attempt was made to collect the money. The prisoner merely walked out of court a free man. In some cases he returned to the estate to pack up his belongings, told the other Maistries of the good time that had come and went off to his country rejoicing. As our whole Labour Force seemed likely to become disintegrated we held a special Meeting on November 1st. A deputation was appointed to interview the Collector. We saw Mr. Evans and were at least able to persuade

him to withdraw the order. He however insisted on the correctness of the view that if a prisoner was fined he could not be punished further criminally, and that the latter part of section 35 only refers to civil liability. A deputation of laymen could not argue a point of law with a District Magistrate. We had achieved our immediate object and had to be content with that. I have always been an opponent of the Act. At one time, supported by the majority of this Association, I agitated for its withdrawal from Wynaad, in the Madras Council, as Chairman of the U. P. A. S. I. and as your Secretary. Government refused to withdraw it though we had the promise of the Governor of Madras that if we found it unsatisfactory after a fair trial it would be withdrawn. I then dropped the subject and for the last 6 years have said nothing against it. I am not going to say anything against it now. But without doing so I will state two facts that officials seem to have forgotten. One is that the clause objected to was not passed by any oversight. It was passed most deliberately after full discussion in the Legislative Council and after the effect it would have being most clearly stated. The other fact is that the Act having been passed, we were begged by Government to accept it, the great inducement being the advantages given us by this very clause. We were even threatened by Government as to what would happen to us if we refused the Act. The clause was nullified by a single High Court Judge saying he did not think the clause could mean what it says. We had to go to the High Court again to get the matter put right. Having got it put right we have been worried for over a year with various attempts to put it wrong again. We showed Mr. Evans that on 8 estates taken almost at random Rs.100,226 was advanced this year for 8871 coolies of whom only 5995 had come in. This takes no account of vastly larger sums advanced in previous years. It is typical of the 40 or 50 estates in Malabar Wynaad and of all the Nilgiri Estates. The security for these very large sums of money is this clause 35. I repeat that Government induced us to accept the Act under threats, it has refused to withdraw it. There has never been a complaint made of our using it harshly or unjustly. It ought not to have the only useful clause deleted on account of a casual remark by a Judge or of a question asked in the Legislative Council. The system of advances under contracts for service may be right or wrong. It has been deliberately recognised and encouraged by Government. If it is now declared to be wrong let Government pay the advances off.

I will now ask you to pass the accounts if they are found to be in order and to accept my resignation. You have honoured me by electing me your Honorary Secretary on ten occasions in the last 13 years and you will probably agree with me in thinking it is time someone else took over the work.

The accounts were found to be correct and were passed.

A very hearty vote of thanks was passed to Mr. Abbott for his services.

ELECTION OF HONORARY SECRETARY.—Mr. Abbott was re-elected Honorary Secretary.

Mr. Abbott thanked the Meeting for the way he had been helped in his work by all Members. He said he honestly thought it was time some one else took on the work. But as they wished him to, he would be glad to carry on for another year.

A vote of thanks to the chair terminated the Proceedings.

(Signed) D. H. MACLEOD, *Chairman*.

(„) C. E. ABBOTT, *Honorary Secretary*.

COFFEE.

Growing for Profit. No. V.

WHICH VARIETIES ARE IN BEST DEMAND?

There are, at times, indications of "practical" men (who do not look beyond their own noses, or beyond the range of vision that some expert means or wishes them to see) being led to imagine that the world is overdone with coffee, and that therefore no one, who is wise, will grow another berry. This is especially the case with anyone who has much to do with Brazil, where, of course, the number of coffee berries produced are "like unto the number of the grains of sand" in the desert of the Sahara, and so one not unnaturally grows up to believe that it is madness to grow more elsewhere.

If, however, the would-be planter takes the trouble to study a "live" grocery paper, especially the *Tea and Coffee Trade Journal* of New York, he will soon find that if Brazilian coffee is as the sand of the desert in quantity, so is it in quality, for as sand is to fine soil when the question of cultivation comes up for consideration, so is ordinary Santos compared with choice coffee when the question of flavour and aroma is being discussed. In saying this, we do not want our readers to think that we are in any way disparaging the bulk of the Brazilian output, but because we want planters to realise that the coffee-drinking world does not want to be left with only Brazilian coffee to drink. Our New York contemporary, as a reference to its pages will at once show, contains much information on the attraction of the various growths of coffee to the roaster and blender, as well as to the wholesale and retail dealers and the consuming public. Europe, they tell you, receives the bulk of the fancy grades, for which it pays a considerable premium for very stylish coffees. Our readers should study this and other articles, as they give information of the utmost value to the planter about to start, and yet it is a class of information that is absent from the text-book, although without such knowledge unsuccessful planters may wonder at times why their grade of coffee is passed by, whilst that of their rivals is bought up with avidity and more asked for.

Guatemala coffee, for instance, we are told, commands a high price on account of its "style" (a New York term that we do not think is used in England). This coffee is said to be "very stylish," with a waxy, bluish bean which, when roasted, splits open and shows a white centre. If this is what constitutes the "style," we must leave it to the American expert to say, for it is agreed that this growth, as a rule, is thin in body. The Coban and Antigua districts in the mountainous districts (as in Jamaica) produce a better grade, "really meritorious coffee," according to Mr. Wilhelm, at an altitude from 3,500 ft. to 5,000 ft. The Coban coffee, in fact, is grown so near the frost line that frosted and blighted beans are often included in the produce sent to market. This spoils their "style," but for all that the coffee has fine acidity, and possesses body so heavy that it borders on bitterness. Such coffee is especially fine for blending, and that is where the point of our story lies. It has been said that a hundred times as much Coban coffee could be sold in America than the 2,500 bags or so at present imported. Here, therefore, is but one of many examples to prove that we are right when urging that, in spite of Brazil's enormous output, there is still room in the world's markets for other growths, and that, in fact, such growths are not only wanted, but their present supply is far behind the demand. The only point to remember is to choose a growth that is scarce and wanted, and, of course, go to the locality best suited for such a growth, and do not start a kind already in over-supply.

A headline is given to Costa Ricas, describing them as being unsurpassed for blending. Here, again, the higher altitude produces the best, for, says Lr. Wilhelm, "the fine grades are grown in the districts of Cartago, San Jose, Alajeula, and Grecia at altitudes of from 4,000 ft. to 6,000 ft. These are characterised by their rich body and fine flavour, and are often so sharply acid that if used "straight" would sour the cream. For blending, the highland coffees of Costa Rica are surpassed by none of the world's growths, and so go to Europe, which overbids America for them by two to three cents per pound.

The preference for the higher land coffee may also be partly due to the more rapid and general ripening of the berries in the lower lands, thereby overcharging the capacity of the curing and drying facilities and causing the work to be hurried and scamped. This same issue of the *Tea and Coffee Journal* is particularly full of coffee information of value to the planters, beginning with an illustrated article on "A Coffee Buyer's Life in Brazil"; and it is, in this and other issues, that the notes on blending and blended coffees want to be studied, as they show what is wanted and why. Such articles, more than anything else, show what growths can stand an increase without throwing prices down, and therefore which centres are most suitable for the coming planters to start in. In some cases, as with choice cacaos, an increased output would probably increase the price of the coffee to the producer, because, owing to its increased popularity, special blenders, instead of having the market to themselves, would have to bid against the general run of buyers, and that, of course, means higher values.

The *Proceedings of the Institute of Certificated Grocers* (London) for October, 1916, contained some notes on coffee by Sir James Crichton-Browne, in which that food specialist suggests that an increased consumption of coffee among the English will perhaps be one of the consequences of the War, the men having been used to it for so long. To bring this about, however, the coffee must be pure, not a mixture, and it must be properly roasted and made. This authority agrees that the output of choice coffees can well be increased within the Empire to the advantage of the producers and the consumers alike.—*Tropical Life*.

(To be continued.)

LIME,

The application of lime in moderate quantities to the soil assists the beneficial processes always going on in fertile soils, due to the action of bacteria, thus helping the conversion of ammonia and other compounds containing nitrogen derived from decaying organic matter and nitrogenous fertilisers into nitrates, the form in which plants mainly, if not entirely, utilise nitrogen.—"Journal of Agriculture," Victoria.—*The Tropical Agriculturist*.

JAPAN'S IMPORT OF CRUDE RUBBER.

According to the official trade returns of Japan, the total value of crude rubber and gutta percha imported during the first six months of 1916 amounted to 3,626,000 yen (average value of yen for this period '5075 cents.) against 1,560,000 yen during the corresponding period of 1915—more than 220 per cent.—"India Rubber World."—*The Tropical Agriculturist*.

THE LABOUR QUESTION.

Another Memorandum from London.

The following memorandum on the suggested amendment and consolidation of the Ceylon Labour laws has been issued from London:—

This memorandum has been framed as an expression of the views of former Ceylon residents who are still deeply interested in the welfare of the planting industry and who feel that the present position is a serious one requiring all possible information and deliberation. They freely realise that the men on the spot who have to bear the responsibility, with attendant worry and anxiety, must be allowed corresponding influence and that any fully considered decision of theirs must not be lightly rejected.

Those in Ceylon who may read this know just as well as those who write it, that the only radical cure for the employers' troubles with labour is to turn the balance of supply and demand. So long as the balance is against the employer, the labourer, in some form, or another is able to make the employer compete for his services. It is probably impossible to turn the balance in the desired direction so long as the great prosperity continues, and therefore a cure cannot be looked for yet. As a factor towards mitigation immigration is more wholesome than legislation, and whether legislation is or is not resorted to, immigration should receive the first consideration and every possible step be taken to turn the 1915 excess of arrivals over departures, say 20,000, into twice that number.

Those who write this memorandum have seen no precise statement of the suggested legislation, but the making of coast advances irrecoverable at law seems to be the essence of what is proposed, so in a critical spirit the project is examined. It is, of course, quite contrary to all the instincts and customs of the Tamil, to whom debt is as much an honourable inheritance as is wealth. He may be glad to have his debts cancelled, but the why and wherefore of such an extraordinary proceeding will puzzle him and certainly not cure him of his innate predilection. While the evils of the coast advance system are manifest, it must not be forgotten that the high rate of advance now obtainable by coolies is a very considerable aid to immigration. A cooly who lands in Ceylon at a cost of Rs.10, and who can then obtain for himself or his Kangany Rs 50, on a "tundu," finds the system attractive, and, it is done away with, some other attraction will need to be given. And not only will the abolition discourage immigration, but it will tend to encourage emigration, for when the cooly finds that his presence in Ceylon no longer means the retention of, say Rs.50, he will see much less inducement to remain there. Certainly, kanganies with no power to borrow money in proportion to the number in their gangs, will treat departures much more lightly than at present. If it be the case that with the abolition of advances other inducements will have to be given to attract labourers, the question arises whether such other inducements will not just replace advances as the means whereby the labourer will induce one employer to bid against another for his services. It is hardly conceivable, that the employer who, when pressed for labour, disregarded federation rules, will not somehow increase his inducement so as to meet the new conditions. If he does so, labour will continue to be locally nomadic and the planters' anxieties and poor check-roll out-turn will again come about.

Mr. Rutherford has recently conclusively shown that the Ceylon system of advances, even at their present height, is not, in comparison with other systems, unduly expensive, and the Ceylon employer in attacking advances is not doing so on the score of expense, but because of the ready handle that they give to pit one employer against another.

If the suggested legislation eventually resulted in much the same bidding for, and nomadic movement of labour, as at present, it is not unlikely that an *annual* charge might fall upon employers not differing much in amount from the present perennial sum classed as "advances."

Of course there never can be certainty that any particular legislation will effect what it aims at, and the non-success of the later legislation undertaken at the employers' desire is not of itself a reason why further legislation may not be of benefit, but there should be strong conviction that the particular provision will be efficacious before the Government is asked again to re-open the labour laws. Past experience has shown how difficult it is to get precisely what is wanted and nothing more.

While those who adhere to this memorandum must say that if the question were put to them, they would pronounce against the proposed legislation as they understand it, they suggest that legislation apart from the labour laws, but which would affect the position as between one employer and another, or legislation that put a more compulsory aspect on paying for coast recruiting, would be in a different category.—*Indian Planters' Gazette*.

RUBBER IN THE DUTCH INDIES.

The International Association for Rubber Cultivation in the Netherlands Indies recognise in their second annual report the difficulty of obtaining an accurate statement of the total area planted with rubber, owing to the fact that the cultivation of rubber in the Netherlands Indies is not only carried on by companies who occupy themselves exclusively with growing rubber, but also by tobacco, coffee and other plantation companies, who have planted a more or less important part of their estates with rubber, while there are moreover a certain number of rubber plantations in private hands, about which few or no data are published.

According to a rough estimate, which probably comes fairly near to the truth, this area amounted, at the end of 1915, to about 300,000 acres for Sumatra (including the few plantations on the islands of Rionw, Borneo and Celebes), and 270,000 acres for Java; total 570,000 acres (230,000 hectares).

This area includes about 20,000 acres, planted by the Government in Java and in Sumatra.

About 210 companies grow rubber as their chief product. The total of the paid up capital of these companies amounts to about 305 million guilders (£25,400,000), divided according to the nationality as follows:—

England, 150 million guilders; the Netherlands, 92 million guilders; France and Belgium, 43 million guilders; America, 18 million guilders; Germany, 2 million guilders; total, 305 million guilders.

The export of rubber from the Netherlands East Indies amounted in 1915 to 18,765 metric tons of which 11,307 tons were shipped from Sumatra and 7,458 tons from Java. In 1914 the total export was 10,046 tons, of which 6,231 from Sumatra and 3,812 tons from Java, which shows that the producing area has considerably increased in 1915. The increase of the total planted area has been moderate in the year under review, and can be estimated at 10 per cent. at the most.—*The India-Rubber Journal*.

RUBBER.

Extracts on Ceara Rubber Planting in Mozambique by R. N. L.

There recently appeared in a London Journal (*The India-Rubber World*) a copy of the instructions that a private owner of rubber plantations in the Federated Malay States issued to his managers and assistants. He was the largest private owner in that country, the greatest rubber-planting country in the world, and his instructions occupied ten columns of the journal. Something of their nature may be gathered from the two following paragraphs, which served him as texts:—

“The first, last, and only reason for managers, assistants, and coolies being employed on the estates is the production of latex. The one aim and object of all the expenditure of money and labour is the production of the greatest quantity of rubber of the best kind at the lowest possible cost.

“The arguments put forward above for the utmost well-being of each individual rubber-tree apply with still greater force to each individual coolie on the estate. No expense or trouble is too great that will ensure a well-housed, healthy, and contented labour force.”

The foregoing is intended as a warning against supposing that while the view is expressed that there is a good outlook for rubber-planting in Quelimane, it cannot all be left entirely to the land. The planter must do his part, and to do that successfully he must either set about acquiring practical experience in the management of a Ceara rubber plantation, or engage the services of an experienced manager. The business cannot be learned by reading about it. Perhaps the greatest service a writer can do in the cause of rubber is plentifully to sprinkle his pages the danger-signals, and to urge that in the case of such a new industry as this the planter, before he begins, should make as sure as he can what he is going to do, how he is going to do it, and how much it is going to cost.

Owing principally to the investigations of Captain Cardozo, Inhambane has been the chief centre of experiment with Ceara rubber (*Manihot Glaziovii*) in the southern part of the Province. An examination of his results has confirmed me in the opinion I have long held, *viz.*, that very little is as yet known about the cultivation of this tree, and that its behaviour in one place may be quite different from what it is in another a few hundred miles away. As we are but at the dawn of rubber cultivation, there is a danger of the Government and the public being misled by people who pose as “rubber experts”; but the truth is it is necessary to approach the question of the cultivation of Ceara rubber in the Province of Mozambique from the point of view of learners, deriving what profit is possible from the experience of other countries, but prepared to find that all sorts of peculiarities are likely to manifest themselves with a change of soil and climate.

It has been said of the Ceara rubber-tree in German East Africa that you cannot kill it, but on the poorer soils of Inhambane the trees after eight or ten years begin to die back from the top. They should be planted only on the red or grey soils, not on the low mashonga or the white sandy soils. Even on the red soils a good stand of young trees cannot be relied upon. Captain Cardozo drills his seeds in like maize, in rows 4 metres apart, and then weeds out, his experience being that 90 per cent. of trees planted turn out to be weak, and never grow to any size. He prefers trees with the old leaf nodes or rings close together, the latex being always richer from them,

Captain Cardozo's method of tapping is a compromise between the conduit system, whereby the latex is first collected and afterwards coagulated, and the stabbing system, with which the rubber is coagulated on the trees. He extracts the rubber by stabbing, but collects the latex in the liquid form and allows it to coagulate afterwards in water, no coagulating re-agent being used. After coagulation the rubber is rolled out in the form of flat, round biscuits. It is beautiful, clear, tough rubber with good nerve. In 1906 he conducted some careful experiments to ascertain the yield of the trees, selecting for the purpose four six-year-old trees, which he tapped for 92 days, from January 7th to June 20th.

The dimensions of the trees were as follows :—

Tree.	Girth.	Height.	Surface Tapped.
	Metres.	Metres.	Mean Superficial Area. Sq. Metres.
No. 1	... 0'64	1'75	1'12
No. 2	... 0'50	1'80	0'90
No. 3	... 0'455	1'80	0'81
No. 4	... 0'55	1'77	0'97

Result.—Total dry rubber : ... 1,161 grammes.

Average per tree (10'15 oz.) ... 290 „

Average per tree per diem ... 2'55 „

The second season he continued the experiment with the same four trees, from December 25, 1906 to July 25, 1907, a longer period but he tapped on 61 days only.

Result.—Total dry rubber ... 1,235 grammes.

Average per tree (10'78 oz.) ... 308 „

Average per tree per diem ... 5 „

The weight of latex extracted jumped from 23 grammes per diem the first season to 36 the second, suggestive of a phenomenon corresponding to the "wound response" of Hevea. This has hitherto been denied Ceara, though some planters maintain that Ceara rubber-trees are the better for being lightly tapped when quite young say at two years old, to train them to the knife, and that trees that are subject to regular tapping swell in girth where the operation has been performed.

I do not think Captain Cardozo's method of tapping suitable for the country. It is true that to obtain biscuit rubber it is necessary to collect the latex in the liquid form and coagulate afterwards; but this method of extraction, involving the arrangements of funnels and cups to prevent the escape of the latex, is one difficult to teach the native of East Africa; Captain Cardozo stated that it required a period of six months to teach a native his system. The system of coagulating on the tree offers less opportunity for the escape of the latex, as it is harnessed to the tree as soon as it exudes. During my stay on his plantation, Captain Cardozo very kindly permitted us to conduct some tapping experiments. I set to work with nine natives, none of whom had ever tapped a rubber tree before. We tapped one morning from 7 till 11 a.m., and in the afternoon of the same day from 2.30 till 5.30. During this period 65 tapplings were made from some 45 trees, which yielded 357 grammes of wet rubber. Sixty-five tapplings may be taken as a day's work for one trained man, though one man will tap anything

from 50 to 400 trees according to the time of the year and the system of tapping in vogue at the particular plantation at which he works. A daily task on a plantation is usually 350 grammes of rubber. This experiment, if it is worth anything, indicates a very fair flow of latex, especially as the tapping season was at that time over and that the month, October, was most unfavourable for tapping, half of the trees having no leaves on. The long midday interval was rendered necessary by the fact that the latex would not flow during the hot hours but beaded at the incisions. The trees were four years old. The rubber was of excellent quality, clean and tough. In the afternoon I was compelled to leave the natives to carry on by themselves. From this brief trial, and from the far more exhaustive experiments of Captain Cardozo, and also from my examination of the trees of the district, I am of the opinion that landowners in Inhambane might safely plant Ceara rubber on the grey and red soils, though not on the white sandy soils. To any one wishing to plant rubber in the Province of Mozambique I should not say go to Inhambane; but to a planter in Inhambane with suitable soil available I should have no hesitation in advising a trial of Ceara.

At a distance about 70 miles from the coast, at an elevation of perhaps 1,500 feet above sea-level, and right in the heart of the zone which I have described as the rubber zone of Quelimane, there is a plantation of between 400,000 and 500,000 Ceara rubber-trees; 90,000 of which were, in 1911, between $3\frac{1}{2}$ and 4 years old, 30,000 1 to 2 years old, and 150,000 6 months old.

The trees were put out in rows 4 metres apart, 3 metres separating the trees in the rows, spacing that seemed to suit the country well enough though 10 by 10 feet is the spacing now most generally adopted in German East Africa. At first the seed was sown in nurseries and the trees planted out afterwards, but there is no necessity for this expense and trouble in the case of Ceara, which can very well be planted at stake, that is, in situ, two or perhaps three seeds being sown at each stake. I detected the same mistake here as in some of the cocoanut plantations at the coast, namely, that more planting was being done than could be attended to properly afterwards. I know of no plant that responds to the hoe more quickly than Ceara rubber, though on the other hand there is none that suffers more if neglected. In this case thousands of trees were left in a jungle of long grass in imminent danger of fire; the labour which should have been devoted to them being applied to the preparation of new ground for fresh planting.

No tapping was in progress, the reason being, I think, that no one connected with the place understood how to tap or properly manage a rubber plantation. Ceara rubber trees may be tapped when at a height of 1 metre from the ground they are 9 inches in girth. In a plantation where the trees are properly and systematically tapped the yield should be at the rate of three to five trees to 1 lb. of rubber per annum. Allowing, the trees being young, that the yield would be 1 kilo from 15 trees (56 kilos per hectare), and estimating the price at 6/6d. per kilo, and the working expenses at 3/6d. per kilo, these 90,000 trees should have been returning a net profit at the rate of £900 per annum.

Some tapping experiments had been conducted, 28 kilos (61½ lb.) having been obtained from fifty four-year-old trees tapped on six successive days by twelve men. This was probably wet rubber, so 40 to 50 per cent. may be deducted for drying; a further deduction has to be made for impurities such as bark, which it was admitted was present; but the results are still remarkably good.

I tapped some thirty trees, and the flow of latex from them being such as to promise that, under proper management, the trees should yield handsomely.

The deadlock which the management of this plantation had apparently reached, and the rich returns that might have been and still may be obtained each year as more trees come into bearing, is an example of the importance of securing skilled management, and the folly of thinking that any one who can speak the native language can manage a rubber estate.

The principle of stabbing or pricking is now generally accepted as the most successful system for the East Coast of Africa, but it is important that this system should be applied in the right manner. The stabs should be made with the flat of the knife held horizontally, not vertically, as was being done in this case, and they should be made close together. The trunk of the tree may be divided for the purposes of tapping into two or three parts, vertically, each part being sub-divided laterally into three or four sections according to the girth of the tree. This will provide for from six to twelve tappings, one section being taken at a time. Tappings may follow one another for three or four days, and then an interval of a fortnight or twenty days allowed to intervene. This may continue for a long time as the tree is in leaf, which may be, perhaps, nine months out of twelve. A 3-per-cent. solution of acetic acid brushed on the trunk of the tree before tapping may be used as a coagulating mixture, but carbolic acid, which makes the rubber harder, is now being used in German East Africa, either by itself or mixed with acetic acid. As is well-known, the juice of citrus fruits and a solution produced by boiling the pulp surrounding the seeds of the baobab tree are also efficacious as a coagulant especially if carbolic acid be added. The strength of the mixture must be regulated according to the weather; a more concentrated solution being required when the weather is wet and the latex watery; and the manner of applying it to the tree must be carefully observed; the surface below the section to be operated on being well dressed to prevent the latex running through to the ground and getting mixed with sand. Coagulation may take place almost at once, or after some hours. Calcium chloride is now coming into use as a coagulant, mixed in the proportion of 100 grammes to 1 litre of water, each man being given 8 litres of the mixture daily. The best method of collecting the rubber is by rolling it on a stick or small roller. In this way both hands can be used and the rubber pulled away from the trunk to avoid any bark getting in. The method of treatment afterwards varies. In some cases the rubber is sliced and soaked in water for a few hours to get the smell of the acid out, and then laid out on tresselated shelves in the shade to harden. In others it is put through a washing machine and rolled into sheets.

The process adopted will depend upon experience, it being always remembered that clean tough rubber is what the manufacturers require; and that while washing or a special treatment may procure a slight increase in price, it may be at the expense of more than a corresponding increase in the labour bill.

Peeling off the outer bark before tapping is sometimes practised. In old trees the bark is tough and difficult to pierce with a knife, and the dry scales are apt to get into the rubber. It takes three times as long to bark a tree as to tap it, and though a tree is barked only once a year, yet on a large plantation a considerably increased number of labourers is required if the system of barking is adopted. No more rubber is obtained, but it is extracted more easily and perhaps in a cleaner condition. On the other hand; the barking injures the tree a little,

Owners of rubber estates in the Province should either obtain the services of experienced managers from German East Africa or send members of their staff there to study for three months the routine of management. The conditions of Quelimane will not be altogether those of Tanga; these will manifest themselves with experience, but the main lines of management can be followed.

A plantation of Ceara should be protected at intervals of 300 or 400 yards with wind brakes to protect these brittle trees from the effect of the south and east winds.

Ceara rubber grows well in the district of Mozambique, but the rainfall is too small for it to become a payable product there. The long dry season reduced the period during which the trees can be profitably tapped to six months or less, a period not long enough for the revenue to be got out of them. The same limitation applies though to a less extent to Inhambane, and I suspect to the territory of the Mozambique Company also. The rubber is in the trees, but it beads out and will not flow. In such countries a totally different system might be tried with the cultivation of Ceara: a system based on the cutting down of the whole tree except the lower part of the trunk, stripping the bark and passing in through rubber-extracting machines. This system might be worth a trial even in countries like Quelimane, where the rainfall is probably sufficient for ordinary tapping operations to be conducted for nine months in the year. Under such a system trees should be planted about a yard apart and allowed to grow into a thicket. They coppice well, and a crop of cuttings could be expected every year or two years, according to climate and season. No doubt many difficulties and disappointments would be encountered under a new system, and extensive operations would not be undertaken till trials on a small scale had first been made, but no tree seems better adapted than the Ceara to new changes such as the invention of rubber-extraction machinery seems likely to effect.

MANGANESE AS A FERTILISER.

The divergence of opinion with respect to the value of manganese salts in effecting increased crop production appears to be explained by the results of recent experiments by Messrs. Skinner and Reid. These authors find that whereas manganese, applied as manganese sulphate at the rate of 50 lb. per acre, is without beneficial effect on acid (sour) soils, it produces a markedly beneficial effect on those soils after their acidity has been neutralised by liming. Wheat, Rye, Beans, Maize and Cow Beans all give higher yields when the soil rendered alkaline by lime was treated with manganese sulphate.--*The Gardeners' Chronicle*.

FARMYARD MANURE.

Dr. Russell estimates that the amount of farmyard manure used annually in this country is 37 million tons, which, at 5s. a load, represents a yearly value of 9½ million pounds sterling. The value of artificial manures used annually is considerably less than this sum, probably not more than 6½ million pounds sterling.--*The Gardeners' Chronicle*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 8.]

FEBRUARY 24, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We publish an article on Bordeaux Mixture by the Deputy Director of Agriculture, Planting Districts. So general is the use of this mixture that the method of making it on an Estate should be carefully preserved in every office. The last para. deserves special attention.

We publish the Proceedings of the Annual General Meeting of the South Travancore Planters' Association and the Proceedings of the third Annual Meeting of the Travancore Combined Planters' Association.

Re-appearing in this issue is our weekly article on markets, Prices and Statistics.

An interesting letter on Collar-Pruning is contributed by "Stumped" who expresses his willingness to *show* the results of his experiments, for, being a busy man, he is unable to find time for correspondence.

Mr. Wilkins asks for information about Pelton's Water Wheels.

The Director of the Labour Department wishes to rectify an omission on the Moplah case about which he wrote recently. He regrets that he failed at the time to acknowledge the public-spirited part taken by Mr. E. W. Fowke, of Attigoonda Estate, who was the first person to give information to the Labour Department and rendered material assistance in bringing the offenders to book.

Mr. L. E. Kirwan has, on his acceptance of the Command of the Madras Gardeners' Corps, resigned his seat on the Mysore Chamber of Commerce.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	58,360	0	2
Mr. H. Waddington	...	...	30	0	0
Mr. C. Howland	...	...	20	0	0
Mr. C. A. Mackenzie	...	...	300	0	0
Total	...	...	58,110	0	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.**Bordeaux Mixture.**

The possibilities of spraying crops like Coffee and Tea successfully against the attacks of fungoid diseases are becoming more and more apparent and there is little doubt that the time is coming when the practical planter will have to take spraying into account as a regular part of the estate cultivation and put it in his estimates on the same basis as weeding or any other cultural operation. When the spraying of large areas is taken up in a systematic way the question of the best spraying outfit will have to be carefully considered. There can be no doubt that some form of pressure sprayer is the most suitable and probably a number of these with a central charging battery by means of which the machines are charged with the spray fluid under pressure will be found better adapted to the needs of the majority of estates than any form of power sprayer as yet on the market. Possibly a more effective form of nozzle will have to be found also.

With regard to the spray fluid to be used there is at present nothing better known than Bordeaux Mixture. For use against all fungoid pests this is the best and cheapest form of fungicide. At the same time it should be remembered that it is a *fungicide* and not an insecticide and it is little use employing Bordeaux Mixture to combat an attack of Scale Insects or other insect pests. For these the best thing to use as a general rule is Fish Oil Rosin Soap which may be obtained from the Oil Chemist, the Madras Fisheries Department, Tanur.

Bordeaux Mixture should be made up on the estate as required. The method of making it is as follows:—

Dissolve four pounds of Copper sulphate in a wooden tub or bucket. Iron or tin vessels must not be used for this purpose or the copper solution will eat holes in them. Kerosin tins cannot be used for this reason. The easiest way to make this solution is to suspend the copper sulphate powder wrapped up in a piece of coarse sacking in a few gallons of cold water from a stick placed across the top of the tub or bucket. If this is done over night the copper sulphate will be found to be all dissolved in the water by the morning. Or the copper sulphate may be pounded into a fine powder and placed at the bottom of the tub and hot water poured on it when it will quickly dissolve.

Having got the four pounds of copper sulphate into solution dilute this solution and make it up to twenty-five gallons with cold water.

Next take four pounds of freshly burned good quick lime and slake it in another wooden tub with a few pints of water adding only a little water at first and thus getting a creamy paste without any lumps in it. It is of great importance that the lime should be fresh and good. Lime for the purpose of making Bordeaux Mixture should be got up to the estate in sealed tins. Several firms supply special lime for the purpose specially graded and packed. Add water to the lime paste till a volume of twenty-five gallons is obtained.

We now have two solutions, twenty-five gallons of copper sulphate solution and twenty-five gallons of Lime water and these are now to be mixed. Both solutions should be strained and it is best to pour the copper sulphate solution into the milk of Lime solution stirring it as this is done. The result is fifty gallons of Bordeaux Mixture. If more is required at a time it can be made up in the same way taking care to adhere to these proportions, *viz.*, four pounds of copper sulphate, four pounds of lime to a final fifty gallons of water.

After the final mixture is made it should be tested. This may be done in two ways. The simplest is to hold a clean knife blade in the liquid for a minute or so. If the mixture is properly made the knife blade will remain clean and bright but if the lime and copper are not present in the right proportions there will be a red deposit of copper on the knife blade. In this case more lime solution must be added until the mixture will pass the test.

A more accurate test is to use a ten per cent. solution of yellow prussiate of potash which can be obtained from any druggist. A drop of this solution is allowed to fall on the surface of the final mixture to be tested. If free copper is present the drop will immediately turn reddish brown in colour. In this event more Lime solution must be added till the mixture passes the test.

If spraying is to be done in wet weather it may be necessary to add an adhesive mixture to the Bordeaux to make it stick on the leaves. A good adhesive is prepared by boiling two pounds of Rosin with one pound of Washing Soda till the solution is clear in a gallon of water and adding this to every twenty-five gallons of Bordeaux Mixture.

Copper sulphate is sometimes difficult to obtain at a reasonable price especially since the war. It is well to write to The Union Agency, Mahamudi Mahal, Bombay if any difficulty is encountered as this firm usually have stocks of the material.

The great disadvantage of Bordeaux Mixture is undoubtedly the fact that it needs to be very carefully made up and that this requires careful supervision. The solution cannot be bought ready made as it will not keep very long. What is needed is a material like Fish Oil Rosin Soap where a definite weight or measure has only to be added to definite volume of water in which it will readily dissolve and produce a liquid ready for spraying. Such a method of making Bordeaux Mixture has not hitherto been available but now a material is being manufactured by Messrs. Shaw Wallace & Co., Calcutta under the name of Borderite which is said to be highly efficient and just as effective as Bordeaux Mixture made in the way described above. When in Calcutta on his way back from Pusa last week the Deputy Director of Agriculture took the opportunity of seeing Messrs. Shaw Wallace & Co., about this material and arranged for a trial consignment to be sent to him. This will be carefully tested and if it is found suitable for spraying the fungoid pests with which we are concerned in Southern India full particulars about it will be published in these pages.

At the Conference of Mycologists held at Pusa which the Deputy Director of Agriculture had the honour to attend the general question of spraying crops was gone into at some length and the men present compared experiences and notes with much advantage. One of the difficulties of spraying at the present time is the difficulty in procuring spraying machines. It is possible that something may be done towards getting machines made locally in Bangalore at a reasonable cost. After the war the price of spraying machines will have to be brought down if English Firms wish to compete with foreign made machines and keep the German trade out of India and planters should keep the matter in mind and encourage any effort to make sprayers of a good type in the country.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS

South Travancore Planters' Association.

*Proceedings of the Annual General Meeting held at Quilon Club
on 3rd February, 1917, at 10-30 a.m.*

PRESENT.—Messrs. J. B. Cook (Chairman), J. Stewart, R. Ross, C. Brander, McMurtrie, W. G. Thom, R. J. A. Moore, and L. A. Lampard (Honorary Member).

Visitors.—Messrs. J. Mackie, O. S. Barrow, E. Lord, J. L. Henderson, W. Clare, A. R. Shaw, L. E. Young, and T. Austin, I.C.S., the Assistant Resident.

Messrs. L. G. Knight, A. H. White, J. L. Hall, A. F. Macdonald, T. Jackson, and R. Branson were represented by proxy.

Notice calling the meeting was read.

The Chairman's report was as follows:—

"Gentlemen,—This Association was started in the coffee days of 1874 but coffee planting had been going on in Travancore a good many years before that, and it was then called the Travancore Planters' Association. Other Planters' Associations were formed in this State and as there was some confusion in correspondence we altered our name some years ago to the one it now holds.

"I know there are several of you can speak and give your views on the various subjects that come before us, but there is a certain bashfulness about the large majority of the members which prevents them from stating their opinions on the "floor of the house." I trust you will all get over this difficulty in time as it would make our meetings much more interesting.

"Our Secretary left this district for the High Range some months ago and I have been trying to do the double work of Chairman and Secretary since then. Mr. Leslie carried on his duty well and our thanks are due to him for the work he did. I have always maintained that the Chairman and Secretary of this Association should be near each other. There are four distinct divisions in this Association with poor postal connection. It is rather over 170 miles from the North to the South of the estates belonging to us, only 27 miles of that distance is by railway and all British mails are carried by runners in the various divisions. For example as to why our Chairman and Secretary should be in close touch with each other:—A registered letter took 7 days to do a journey of 140 miles. When the elections of Chairman and Secretary are brought forward, I trust you will give this point your careful consideration. I know some members think it does not matter where the two men are, but that is a mistake for a scattered district like this.

"The accounts are placed before you and they have been audited by Mr. Henderson to whom our thanks are due.

"The acreage paid for in 1916 was 13760 acres. From figures received the subscriptions in 1917 will be on 14162 acres. I may say that two estates have not subscribed for last year and their acreage is not included in these figures. Our acreage is Tea:—In bearing 4,164 acres, not in bearing 534 acres. Rubber:—In bearing 7013 acres, not in bearing 2246 acres. Crops for year 1916 were Tea 1,975,700 lbs. Rubber 1,573,700 lbs.

"You all know the costs of production, freight, London charges etc., so I need say nothing on these points except to mention that the question of freight to London from South India is a very serious matter for us,

The U. P. A. S. I. are trying to get at the ear of the Home Government on this subject. There are hopes that the new British Government will see to it that national commodities like tea and rubber are not crushed by exorbitant freights.

"The double export duty placed on Travancore tea early in 1916 has been withdrawn from tea passing the Travancore frontiers on and after 9th November last. One of the duties paid on tea exported before that date is to be refunded. According to a letter received from the Chief Secretary to Travancore Government tea exported from this State for consumption in British India has been exempted from duty. The last clause in his letter states the date from which the new arrangement will come into force will be communicated to you later on.

"The export duties on tea from this State have been paid to the Travancore Government and at British ports to the Indian Government. I cannot quite make out from the Travancore Gazette notices and letters who is to do the refunding. Perhaps Mr. Austin can give us this information as the notices received are not by any means clear on this point.

"A circular was received from the U. P. A. S. I. in reference to the Indian Industrial Commission. It was circulated among our Committee and we came to the conclusion that it had better be left in the hands of the Parent Association. It is an interesting subject but I do not think it includes this State as the Travancore Durbar have for some time had a scheme in hand for organising technical and industrial education and for promoting indigenous and new industries. They have appointed a European from the Educational Department, who has had similar experience in England and on the Continent, to investigate and report on the whole problem.

"There is a further subject from the Scientific Department. The Government of India have expressed their inability (pending sanction from the Secretary of State) to authorise any preliminary expenditure in connection with the scheme for the development of a Scientific Department for the assistance of the planting industries of Southern India. As a plot has been promised from this Association for experimental purposes we shall be glad to hear your views on the matter.

"Gentlemen, my period of office is now ended and in tendering my resignation let me express the hope that you will elect a Chairman from the districts further north, who from his position can know better what is going on than I can."

The statement of accounts presented showed that the revenue of the Association for the year was Rs. 3,189-12-9 including Rs. 1,855-3-1 brought forward from 1915 and the expenditure including subscription to Lady Ampthill Nursing Institute Rs. 100 and to U. P. A. S. I. Rs. 1,720-0-8 was Rs. 2,516-0-8 leaving a balance of Rs. 673-12-1 to carry forward to next year.

The election of officers resulted as follows :—Chairman Mr. J. B. Cook ; Secretary Mr. R. J. A. Moore and Committee, Messrs. R. Ross, L. G. Knight and H. S. K. Morrell.

The subscription for the year, was fixed at 3 as. per acre.

An alteration was made in Rule No. 16, making the rule read : "Members not having paid their subscription before the meeting following the date of being called up, will be regarded as defaulters and will not be allowed any voice in that meeting or any subsequent meeting until their subscription has been fully paid."

The letter *re* the Scientific Department was read and it was thought that without Government assistance to maintain experimental stations, no action should be taken at present.

The letter *re* the Industrial Commission was read and in view of the remarks by the Chairman in his annual report, the matter was left in the hands of the U. P. A. S. I.

Re shipping freights, correspondence was read and it was resolved to ask if the Parent Association had been able to hear from London on the subject of this Association's previous resolution.

Complaints were made by members of serious delays in the despatch of tea and rubber from certain S. I. R. stations and also in the delivery of estate requisites and on the motion of Messrs. Stewart and Ross the following resolution was carried:—"That the Honorary Secretary be asked to address the South Indian Railway Company (the Agent and General Traffic Manager) that tea and rubber is being held up at some stations and there is great delay in getting it despatched, and to point out that tea is a perishable article and rubber a national commodity. It is also essential that all estate supplies and packing materials be forwarded without delay. As this is of vital importance the U. P. A. S. I. should also be asked to move in the matter.

There being no further business the meeting closed with a vote of thanks to the Chairman.

(Signed) R. J. A. MOORE,

Honorary Secretary.

Travancore Combined Planters' Association.

The Third Annual Meeting of this Association was held at the Quilon Club, on Saturday, the 10th February, 1917.

PRESENT.—Messrs. J. B. Cook, Vice-Chairman, South Travancore Planters' Association, A. J. Wright, Kanan Devan Hills Planters' Association, E. Vincent, Mundakayam Planters' Association, J. Mackie representing Messrs. Harrisons and Crosfield, Limited, J. Vickers, Messrs. Darragh Smail & Co., Ltd., Alleppey and L. A. Lampard, Honorary Secretary. Visitor.—Mr. E. Lord.

Notice calling the Meeting was read and the agenda was as follows:—

- Minutes of last Meeting.
- Accounts for year ending 31st December, 1916.
- Vice-Chairman's Address.
- Honorary Secretary's Report.
- Election of Office Bearers for ensuing year.
- Subjects for Sri Mulam.
- Shipping Freights.

In the unavoidable absence through ill-health of Mr. Richardson the Chairman of the Association, Mr. J. B. Cook, the Vice Chairman, took the chair.

The minutes of the last Annual Meeting and those of the meeting held on the 28th March 1916 were confirmed.

The accounts for the year ending 31st December 1916 were passed :—
**Income and Expenditure Account for 12 months ending
 31st December, 1916.**

	Rs.	A.	P.
Postages and Telegrams	7	12	6
Printing	4	4	0
Typist's salary	25	0	0
Travelling Expenses of Chairman and Deputation to Dewan...	157	8	0
Excess of Income over Expenditure carried to Balance Sheet..	85	10	9
	<u>Rs...</u>	<u>280</u>	<u>3 3</u>

Subscriptions—

11 Members at Rs.25...	...	...	...	275	0	0
Interest ... ..	...	...	...	5	3	3
	<u>Rs...</u>	<u>280</u>	<u>3 3</u>			

BALANCE SHEET. 31st December, 1916.

Income and Expenditure Account—

Balance at credit at 1st January, 1916 ...	209	1	10
Add—			
Excess of Income over Expenditure, 1st January to 31st December, 1916 ...	85	10	9
	<u>294</u>	<u>12</u>	<u>7</u>
Subscriptions in arrears	50	0	0
Cash with Messrs. Harrisons and Crosfield, Limited ...	244	12	7
	<u>Rs...</u>	<u>294</u>	<u>12 7</u>

Examined and found correct.

(Sd.) J. L. HENDERSON.

(Sd.) L. A. LAMPARD,

9th February, 1917.

Ag. Hony. Secy.

VICE-CHAIRMAN'S ADDRESS.

Gentlemen,—I think you will all agree with me in regretting the absence of our chairman owing to illness, and in trusting that a sea-voyage will restore him to his usual state of health. Mr. Richardson has done a lot of work for us in the past year in connection with the Tea Export Duty and Forest Land Regulations and our thanks are due to him for the great trouble he took over these important subjects.

Our Honorary Secretary, Mr. Gwynne resigned during the year owing to his leaving Quilon for another sphere of usefulness, and we are indebted to him for his services which were appreciated by all of us. Mr. Lampard has kindly carried on the work, and is present to speak for himself.

1916 has been a very serious year for Britain and her friends, but there are signs that our next Annual General Meeting will be held in more joyful circumstances. The question of freight is a most serious one for South India, and no doubt but you will have something to say on this and other matters.

Mr. Richardson writes me as follows :—

“ There is just one point I would like to draw your attention to. It seems to me under the present arrangement we are getting rather mixed up with Government over the Association correspondence. A certain amount goes through the Combined P. A. and a good deal goes direct from the District Associations and Government are getting rather mixed to whom to reply. I think at this next meeting it should be clearly laid down that as far as possible District Associations should deal direct with the Government and only in the event of their not getting satisfaction, action should be taken by the Combined Association, and that, only after District Associations have been consulted.”

This seems a fairly easy matter to put right and can be discussed later on.

I wish our Chairman had been present to give you a longer address and trust you will excuse these short remarks of mine.

I now call on Mr. Lampard to give his report, and beg to tender my resignation as Vice-Chairman.

THE HONORARY SECRETARY'S REPORT.

Gentlemen,—This constitutes the Third Annual Meeting of this Association, the membership of which remains unchanged at 11 of which 5 are Planters' Associations and the remaining 6 Mercantile Firms.

In September last Mr. Gwynne resigned from the Honorary Secretaryship on leaving Quilon and since that date Mr. Lampard has acted.

The accounts for 1916 as submitted to this Meeting show a credit balance of Rs.294-12-7 which is an increase of Rs.85-10-9 over last year's credit. I do not think any items in the accounts call for special except perhaps Travelling Expenses. Of the amount shown, Rs. were incurred in connection with the Tea Export Duty and Rs.40 in connection with Timber Values.

Up to July of last year this Association actively took up with the Travancore Government the question of Timber Values and on the 18th of that month this Association circulated to all Members the Government Notification embodying the result arrived at and agreed upon between the Travancore Government and this Association.

This Association has also been engaged in obtaining redress from the Double Export Duty on Tea. This matter has now been settled and all Travancore Tea exported will pay one Duty only and that at the State Boundary Chowkeys. Tea exported for consumption in India will be free of Duty. As regards Tea that has already paid Tax to both the Travancore and British Government, half will be refunded by each of the amount paid to each.

The question of Rubber Thefts was raised by the Chairman of this Association and all members were circularised in October last for their views. From the replies received, no members appear to be aware of any thefts that may be going on but all are prepared to combine for action if necessary.

In April of last year this Association was informed by the Mundakayam Association that it was applying direct to the U. P. A. S. I. to change the name of this Association to the United Planters' Association of South India, Travancore Branch. I may say that we had not first been consulted in the matter. Again in July we were informed that a resolution to this effect would be brought up at the Annual General Meeting of the U. P. A. S. I. in August. This resolution was not brought up, however, and nothing more has been heard from the Mundakayam Association in this connection.

I regret that Mr. Richardson has been unable to be present to-day through ill-health.

This, Gentlemen, completes my report, and I beg to tender my resignation.

Quilon, 10—2—1917.

The election of the Office Bearers for the ensuing year was proceeded with and Mr. Richardson was elected Chairman Mr. A. J. Wright, Vice Chairman and Mr. L. A. Lampard, Honorary Secretary.

SUBJECTS FOR SRI MULAM.—The various Associations' Delegates to the Sri Mulam present explained the subjects they were bringing up at the Assembly and a number of matters were brought to light that were new to several present. An interesting discussion ensued and it was agreed that representatives would support one another.

FREIGHT.—It was felt that as things stood at present the result of the U. P. A. S. I.'s representations should be awaited.

The meeting then closed with a vote of thanks to the Chair.

JUDGING THE QUALITY OF TEA FROM CERTAIN CHARACTERS.

M. J. B. DEUSS.

A study of the chemical characters of tea was undertaken in order to ascertain whether these characters could furnish indication as to the quality of the tea. The results were not satisfactory, but some important facts were brought to light.

The determination of theine, for instance, may serve to detect adulteration. For a good quality Java tea, the proportion of theine should not be below 3%.

The percentage of mineral substances is also no basis for judging the quality, as is proved by comparing the results of analysis and the prices of the same tea on the market.

A negative result was also arrived at on determining the quantities of soluble substances and tannin.

The investigations will be continued with the volatile oil distilled from the leaves of the tea.

In some European countries it has been thought that adulteration of the tea could be detected by the quantity of stalks (partly lignified) of the tea leaves. This idea is proved to be erroneous, as many samples of a superior tea of high value contained a relatively much greater quantity of leaf-stalks or fragments of young stalks than teas of poor quality.

It is concluded from these enquiries that in the case of tea, just as in that of wine, tasting is so far the sole method of determining quality. "Bull. Internat. Inst. of Agric."—*The Tropical Agriculturist*,

MARKETS, PRICES, AND STATISTICS.**Tea.**

The following figures showing the export of Tea during the month of December are published by the Indian Tea Association.

	1916.	1915.
	lbs.	lbs.
Sailings to Great Britain in December—		
From Calcutta	7,048,720	21,308,880
From Chittagong	5,597,973	2,446,062
From 1st April to 31st December	167,527,183	188,371,973
Sailings to Australia and New Zealand—		
In December	215,869	1,002,601
From 1st April to 31st December	3,967,635	7,822,921
Sailings to America—		
In December	569,119	1,273,757
From 1st April to 31st December	4,337,838	9,873,325
Sailings to Other Places—		
In December	3,907,122	7,805,719
From 1st April to 31st December	34,405,271	36,269,500
Sailings from South Indian Ports—		
In December	2,322,619	1,225,704
From 1st April to 31st December	14,332,197	17,004,445
Total Sailings—		
In December	19,661,422	35,062,723
From 1st April to 31st December	226,570,124	259,342,164

The following were the sailings from South Indian ports during the month of December :—

From Cochin—	lbs.
To London	343,905
To Asiatic ports	35,756
From Tuticorin—	
To London	270,598
To Colombo	95,177
To St. John N. B... ..	808,354
To Bombay	23,460
From Alleppey—	
To Colombo	5,142
From Calicut—	
To London	626,445
To Bombay	49,430
To Colombo	64,352
Total..	2,322,619

The Export of Tea from Ceylon from 1st January to 22nd January 1917 was, Black, 1,952,406 lbs. Green, 14,715 lbs. the corresponding figures for the same dates in 1916 being 4,944,932 lbs. and 35,047 lbs. respectively.

2,035,197 lbs of Tea were exported from India to Russia during the month of December.

Messrs. T. H. ALLAN & CO'S REPORT for the week ending 16th January states that a good demand has been well maintained and prices generally are dearer for all the lower and medium grades.

Coffee.

Monthly statistics to 31st December.

		1916.	1915.
EAST INDIA—		tons.	tons.
Landed to 31st December	...	2,305	3,753
Delivered to 31st December	...	2,740	3,884
Stock on 31st December	...	851	1,328

COFFEE OF ALL KINDS—

Stock in U. K. on 31st December	...	37,000	33,000
Total European Imports to 31st December	...	359,520	485,615
Total European Deliveries to 31st December	...	340,165	534,770
Total European Stock on 31st December	...	225,465	206,470
World's Visible Supply on 31st December	...	661,135*	630,180

* An increase of 9,310 tons as compared with a reduction of 10,940 tons last year.

Brazil Receipts to 15th January.

1917.	1916.	1915.	1914.
9,658,000	11,590,000	8,152,000	10,944,000

Prices During 1916.

	Middling	Good middling	Superior
	East India.	Cost Rica.	Santos.
1st January	... 66/-	69/-	46/-
31st December	... 77/-	78/-	52/6
Highest	... 77/-	78/-	58/6
Lowest	... 66/-	69/-	46/-

MESSRS. T. H. ALLAN & CO'S WEEKLY REPORT for the week ending 16th January states that since the market reopened after the holidays the supplies brought forward have been small, and a good demand has been met with, especially for mild coffees, prices of which show some advance. "Futures" have been firm and are to-day affected by the reported sinking of a large Brazil steamer.

THE MYSORE CHAMBER OF COMMERCE WEEKLY REPORT quotes the following prices per maund of 26½ lbs.—Peaberry Rs. 15 to Rs. 15/8; Parchment, Rs. 11; Native, Rs. 10. Chickmaglur quotes per maund of 28 lbs. Peaberry, Rs. 13; Parchment, Rs. 10; Native Rs. 9 to Rs. 9/8. Mangalore quotes Native from Rs. 200 to Rs. 209 per candy and Parchment Rs. 212 per candy. It is reported that a fair trade is passing.

Rubber.

The following are the imports of Rubber into the United Kingdom in centals of 100 lbs. during the year 1916.

	1916.	1915.
From Dutch East Indies...	124,041	64,119
From French West Africa	13,665	16,234
From Gold Coast	14,825	6,318
From Other Countries in Africa	86,292	62,455
From Peru	18,905	16,582
From Brazil	240,883	286,391
From British India	37,898	32,888
From Straits Settlements	445,311	660,523
From Federated Malay Straits	446,497	288,803
From Ceylon	255,130	286,097
From Other Countries	32,594	40,037
Total Imports	1,685,395	1,760,456

The following quantities were re-exported during the year:—

To Russia	136,115	259,061
To France	210,445	152,097
To America	574,547	831,801
To Other Countries	164,375	179,895
Total Re-exports	1,085,422	1,422,854

Rubber prices have fluctuated round about 2/11 to 3/- Smoked sheet commanding the same price as Crepe and occasionally a small premium. The price on 16th January was 3/- for both classes.

Spices.

Pepper.—The market has been quiet and the tendency for forward deliveries a little easier. Fair Tellicherry nominally 10½d. Local prices range from Rs. 11 to Rs. 11-8-0 per 25 lbs.

Cardamoms.—If the negotiations about business with Scandinavia led to anything satisfactory there would be a good demand and an immediate rise in prices, but with continued difficulty in obtaining permits there is at present very little doing. The local price is Rs. 26 per maund of 26 lbs. Chickmaglur quotes Rs. 20 to Rs. 22 per maund.

CORRESPONDENCE.

THE EDITOR,

Planters' Chronicle,

Bangalore.

Collar-Pruning.

Dear Sir,—I have been interested reading the various letters and "opinions" under this heading in your correspondence columns, and think it may possibly interest others to have some "facts" founded on experiments which were started so long ago as 1893/4 and reported to have satisfactorily passed the experimental stage ten years later, i. e., in 1903/4.

These experiments were started on an Estate that was planted over 50 years ago, and for the reason, that, owing to the loss of primaries, together with old, bad, or irregular shade, the yield from some fields was very low, so the natural and practical question of how to regenerate these fields without loss arose. To cut down the field was the quickest way of getting a new field of coffee, but this entailed the loss of at least one crop, by stopping the fields with the growth of suckers it was anticipated that larger yields might be obtained before cutting down, and the experiments were started on these lines, i. e., to force as much as possible out of the fields, and so have something in hand against the cutting down.

With regard to the shade some young plants and stakes were put out some years before cutting down, immediately the coffee was cut down, overgrown, and bad caste trees were either felled or jacked out, the latter for choice.

The cutting down time varies according to the field, some fields will go on yielding heavily for years before becoming exhausted, others show signs of distress in a few years.

Fields have been treated in various ways, some were limed to start with, some had manure some had nothing but weeding, and so on.

After cutting down it was found difficult to work up the land with so many stems and branches about, so burning a field was tried and proved a cheap and effective method of clearing up, and had the advantage of destroying a lot of undesirable pests.

After stumping a good digging is essential, both to grate the soil and to stir up and stimulate the old stumps, but liming does not appear to be necessary till the stumps have made a cluster of shoots, when one would expect the functions of the roots and sap to be restored, and to therefore, be better able to assimilate the released gasses from the soil.

The idea of the two shoots is to have a fuller tree by the simple expedient of topping them at different heights, say 3 1/2 and 2 feet. The top branches of the lower tree thus forming the lower part of the upper tree.

These briefly are the main lines on which the experiments have been conducted, they lend themselves to variations according to the several factors that have to be considered.

Not posing as an authority I am not prepared to correspond on this subject, but any who are sufficiently interested are very welcome to come and see things for themselves.

STUMPED.

Hoscottay, Somwarpet, N. Coorg,
February, 19, 1917.

THE EDITOR,
Planters' Chronicle.

Bangalore.

Pelton Water Wheels.

Dear Sir,—I would be much obliged if you or any of your readers could give me any information regarding Pelton Water Wheels: where they can be obtained, cost, etc.

Yours faithfully,

P. M. WILKINS.

EXCISE TARIFF CHANGES.

RUSSIA.

Excise Duty on Tea—other than Brick and Tablet Tea.

With reference to recent notices in the "Board of Trade Journal" under the head of "Proposed Excise Tariff Changes" respecting the projected imposition of an excise duty on tea (other than brick and tablet tea) in Russia, the Board of Trade are now in receipt, through the Foreign Office, of information to the effect that the excise tax in question was established, at the rates shown below, by an Imperial Decree, dated the 16/29th September, and published in the official "Bulletin of Laws" of Petrograd on the 4th/17th October.

The Decree provides, *inter alia*, that the excise tax on tea imported from abroad is to be levied independently of the Customs (import) duty. Tea imported not for sale but for the use of the persons ordering or importing it, is to pay excise duty at the highest rate leviable, at the same time as the import duty. The excise is to be collected by means of special label bands on the packing, on the issue of the tea from places of packing, or distribution. No tea may be sold otherwise than in complete packets with the regulation label band attached, the packets indicating the name of the firm packaging the tea for sale, their address, the brand of tea, and the weight and sale price thereof. Tea may only be sold at the price indicated on the packet. When tea is exported from Russia to foreign countries the excise duty paid thereon will be returned.

The date on which the excise tax is to come into force, and the procedure and conditions in connection therewith, are to be fixed by the Minister of Finance.—*Board of Trade Journal.*

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 9.]

MARCH 3, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We publish Messrs. Lewis and Peat's Rubber Trade Review for 1916. "Taking the year all round it has been an exceptionally good one for Rubber. The future is uncertain but in our opinion prospects generally are good."

The article on Sisal Planting in British East Africa will interest those who are cultivating it in South India.

We publish an article on Coffee in British East Africa.

The last paragraph on Crop dealing with Labour and Diseases will furnish food for thought. Legislation already put in force in the Dutch East Indies and contemplated by the Indian Government may make the Labour position in the Middle East a most troublesome one.

From the *Tropical Agriculturist* we take an article on Synthetic Rubber.

To *Nature* we are indebted for an article on Fertilisers and Agricultural Production.

We publish a very interesting extract from the *Scientific American* entitled "Retrospect of the year 1916.—The World War."

A correspondent has kindly sent us the following extract from an English paper: all his old friends will be delighted at the news:—

"Capt. Claude K. Martin, Devon Regt. was mentioned in General Milne's Despatches on December 7th, 1916 for good patrol work done under circumstances which were both arduous and dangerous.

"He was awarded the Military Cross on January 2nd, 1917, for successfully penetrating the enemy's lines at night whilst under heavy fire, reaching the enemy's main outpost position, which he attacked with his small patrol party of six, secured a prisoner and valuable information of great importance, and then returned without the loss of a man.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	58,110	0	2
Messrs. Barber and Pascoe	...	...	75	0	0
Mr. Stephen Bayly...	...	...	10	0	0
Mr. J. A. Richardson	...	...	50	0	0
Mr. Campbell Hunt	...	...	30	0	0
The Hon'ble Mr. E. F. Barber	...	...	100	0	0
Total	...	...	58,375	0	2

RUBBER.

Trade Reviews of 1916.

MESSRS. LEWIS AND PEAT.

We commenced 1916 with a high price for rubber, standard sheet being 4s. 2½d., crepe 4s. 3½d., and fine hard Para 4s. 1d. per lb. These were the highest prices reached during the year, and the lowest, namely, 2s. 1½d. for sheet and 2s. 2d. for crepe ruled in July. Fine Para lowest price was 2s. 7d. in June.

Taking the year all round it has been an exceptionally good one for rubber, particularly for plantation, and in spite of many difficulties caused by the war, both in the carrying out of contracts and of the office work entailed, a very large volume of business has been done and has been put through smoothly. Occasionally during the year the curtailment of shipping permits to neutral countries has interfered with business and caused a certain amount of trouble and confusion, but we consider the system of control by the Rubber and Tin Exports Committee has been most efficient, and there is no doubt that the rubber that eventually filtered through to enemy countries has been a negligible quantity.

As in 1915, a great feature has been the very large business for delivery and on f.o.b. terms, and it seems that nearly all producing companies agree that to sell a part of their crops forward is sound policy. The tendency is, if the actual producers do not sell, that speculators both here and in New York are tempted to fill manufacturers' orders and then naturally try to depress prices in order to cover their commitments at a profit. During the past year we may safely say the bulk of the rubber sold for delivery and for shipment by plantation groups has been bought on orders from actual consumers.

With large war contracts running and entered into over comparatively long periods, manufacturers have consistently covered or partly covered their requirements ahead, and, knowing the risks of loss by submarine warfare and the great shortage of freights and consequent long delays in delivery, many have held considerable stocks. All these factors have kept prices fairly steady, but at times, especially during the last few months of the year, when losses of rubber were reported and the ships arriving here and in America were few and far between, prices jumped several pence per lb. Speculators have been attracted into the market, and at times bought considerable quantities, but they never really disturbed the natural course of the market but rather helped to prevent violent fluctuations.

The prices paid for rubber on f. o. b. terms for direct shipment to New York from the East ranged from about 2s. 1½d. to 2s. 10½d. for the first half of the year, 2s. 1d. to 2s. 9½d. for the whole year, and up to 2s. 8d. for the last six months.

The daily spot market has been excellent, and in spite of some very large cargoes arriving here no surplus has been at any time been noticeable, and the supply and demand have been wonderfully balanced.

The wharfingers, who have, in common with all other branches of the trade been greatly handicapped by shortage of labour have handled the large arrivals remarkably well, and the delays in landing and sampling in reality rather helped than hindered the sale of the rubber, because no very excessive quantity at any particular moment depressed the spot market.

We can again say that the quality of all plantation rubber has been fully up to that of previous years, and better grading has been noticeable in the lower qualities. Complaints and arbitrations, considering the very large business done, have been wonderfully few. When quality was at fault, mould, rustiness, and oversmoking were the chief complaints in sheet, and the trouble in crepe was almost invariably colour.

The Rubber Trade Association again have had to face many difficulties, which are naturally arising in the general war upheaval of ordinary business, but everything has been settled smoothly and apparently to the satisfaction of, and the benefit to the trade in general.

The Rubber Growers' Association have also had a very busy year, and have proved of inestimable assistance in furthering and protecting the interests of the planters and those interested here in London, in the East, and also in the difficult whirlpools of legislation at home.

A revised issue of "Recommendations for the Treatment and Curing of Rubber," divided into two parts, one for sheet and one for crepe, is shortly to be published by the Association. A great amount of thought and care has been given to these most useful pamphlets, which, having been brought right up to date, no estate should be without a copy. We have no doubt the original issue has had a great deal to do with the improvements of late years in the curing of rubber. By keeping the estate managers *au fait* with new methods and discoveries, and educating them continually on the best-known principles are the surest means of bringing about standardisation.

Wild rubbers have been imported in small quantities and intermittently during the year, but have been slow of sale, and there is no doubt that the prices obtained have shown very little margin of profit. On the other hand, Congo sorts, which have been in larger supply, have sold well and at satisfactory prices.

Fine Para prices have fluctuated from 2s. 7d. to 4s. 1d. but we cannot say in entire sympathy with plantation grades. This market is small and in few hands, and many of the variations have been caused by other reasons than simply that of supply and demand. The average price of hard fine Para was about 3s. 1½d per lb., and the production of Para about 37,250 tons, against 37,000 in 1915 and 36,800 in 1914.

The production of plantation rubber from all countries during 1916 amounted to about 150,000 tons, against 96,000 in 1915 and 64,500 in 1914. The average price realised for standard quality works out at about 2s. 10½d. per lb., against 2s. 6½d. in 1915 and 2s. 4d. in 1914.

The world's production of all sorts is put at about 202,000 tons, against 146,000 tons in 1915, the increase being almost entirely plantation grown. Consumption has practically equalled production, and the stocks shown at the end of 1916 were not excessive.

The future, of course, is uncertain, but in our opinion prospects generally are good. Naturally a great deal depends on the war and the contingencies arising out of it. We think the principal question is—When the war ends will the demand for raw rubber from countries now unable to get it be greater than the falling off of material now being used for war contracts? While the war lasts, we do not look for much change in values or falling off in the demand. Whatever military conditions may be, the requirements of rubber for transport vehicles' solid tyres will probably be enormous. The production of plantation rubber for 1917 is estimated at 200,000 tons.—*The India-Rubber Journal*.

SISAL.

Sisal in British East Africa.

In 1902 and 1903 a number of sisal suckers were imported from German East Africa, and planted out in the grounds of Government House, Mombasa, and the Provincial Commissioner's garden at Nairobi.

In 1904 trial plots were laid out by the Government at Nairobi, Makindu, and Miritini, with bulbils obtained from German East Africa and St. Vincent. In 1905 rooted plants were issued from these stations to a number of the settlers in the Highlands, the Midlands, and the Coast belts. It soon became apparent from the results of the various trial plots that the plant would do well in each of the zones referred to, and the encouraging reports on samples of fibre sent at the latter date to the Imperial Institute, strengthened the view that a profitable fibre industry might be developed in the Protectorate. In the early part of 1907 large consignments of bulbils were imported from German East Africa by various settlers. In September of that year however, a prohibitive duty was placed on all bulbils and suckers exported from that protectorate, and closed this cheap source of supply. But the check to development was only temporary, for further supplies were obtained from India, and many thousands were imported from this source. Further, a number of the earlier introduced plants were by now poling—each plant producing from 2,000 to 4,000 bulbils—while many suckers were becoming available on the earlier established plantations. In 1909 the Department issued 129,000 bulbils and suckers from the various stations and in 1910 a further 129,000 rooted plants.

In 1911 some millions of bulbils and suckers were available for the extension of existing plantations and the establishment of new ones.

The following table gives some interesting results of tests made at the Anglo-American Sansevieria Fibre Works at Voi in the decortication of sisal fibre grown at certain centres:—

Where grown.	Height above sea- level.	Age of leaves.		No. of leaves.	Weight of leaves.	Weight of leaves per 100.
	ft.	Y.	M.		lb.	lb.
Near Fort Hall ...	4,500	3	4	232	566	243
Nairobi ...	5,450	4	6	250	706	282
Voi ...	1,830	3	6	300	557	185
Merihini ...	450	3	4	250	612	244
Mombasa ...	70	5	6	250	457	182

Where grown.	Average length of leaves.		Weight of dry beaten fibre.	Percentage yield by weight.	Weight of beaten fibre per 100 leaves.
	ft.	in.			
Near Fort Hall ...	3	8½	12	2'12	5'17
Nairobi ...	4	8	19'5	2'76	7'8
Voi ...	4	0	16	2'87	5'33
Merihini ...	4	9	18'5	3'02	7'4
Mombasa ...	5	2	20	4'39	8

Since these tests were conducted others have been made which support the results given in the table, e.g., that on the coast a larger percentage of fibre is obtained than in the Highlands, but it must be remembered that in the latter zone manual labour is cheaper, and oxen can be utilised for cultivation and draught purposes.

In 1912 the first decorticator "The New Corona," was erected and at work. At present there are five decorticators in constant use, three "Corona's" and two of Robie's make, together with a few "Raspardors."

The total output now in the Protectorate is about 50 tons of fibre per week, which is realising £28 to £38 a ton in the London market.

More decorticators are being erected to cope with the increasing area which is reaching the harvesting stage, but this machinery must be considerably increased in a year or two in order to deal with the large area which has been placed under the crop during the last two years. It is estimated that there are some 7,500 acres planted out with sisal, while further large areas of virgin soil are now under cultivation for the extension of the industry, and it is anticipated that in the near future sisal fibre production will occupy a very important place among our agricultural interests.

In this Protectorate, and in German East Africa, sisal matures and poles at a much earlier period than in India, Australia and Yucatan. This is probably due to our having two rainy seasons and two periods of growth in the year. This early maturity has its advantages, for whereas the yield of fibre from plants in a given area of land is much the same (three tons) in all sisal growing countries, these returns are obtained in the Protectorate in 5½ to 6 years, as against 7, 8 and 12 years in India, Australia and Yucatan respectively.

Further, the quality of fibre due to the accelerated and almost continuous growth of the plant is equal, if not superior, to that of other countries in tensile properties, and this is shown in the difference of from £1 to £2 a ton in favour of the fibre produced in this Protectorate and German East Africa.

The reconstitution of the plantations has been a matter of much concern with our planters. It was at one time expected that after the final harvest the land would have to be cleared of the boles (30 tons or so per acre) and left fallow for a year or put under a rotation crop.

Experiments, however, conducted by the Agricultural Department, have demonstrated the fact that after the second cutting of leaves suckers can be planted between the older plants, and that when the last cutting of leaves is completed the boles can be destroyed by the injection of a small quantity of arsenite of soda, without detriment to the suckers. From these suckers a first cutting of leaves can be obtained two years after the final cutting of the first established plantation.

As a result of these experiments it is now found that a smaller area can be worked economically as a sisal proposition. But even so sisal cultivation is a branch of farming to be pursued by a company or by a person of capital rather than by a small holder.

From data obtained from various planters the following may be taken as a rough estimate of the capital expenditure in establishing a sisal plantation :—

Purchase of 1,200 acres	...£ 2,400
(250 acres are required for grazing of working oxen)	
Planting with suckers and further tillage	...£ 3,800
(Expenditure being spread over a period of 6 years)	
Farm house and buildings	...£ 800
Machinery and other plant, including engine, baling press, sheds and tram rails, etc.	...£ 5,000
(Expenditure in the third year).	
Total...£12,000	

A small revenue can be reckoned on in the first and second years from catch crops, but none from sisal until the beginning of the fourth year, from which date, at current prices for fibre, viz., £28 to £30 a ton, or even at £25, a satisfactory balance sheet should be produced annually. At no period during the last 14 years has the price of sisal fibre fallen to £25 a ton, and there seems very little fear of the market being glutted for many years to come.

In Yucatan, the home of the plant, alcohol is now being profitably produced from the waste material, which at the end of the dry season contains considerable quantities of fermentable sugar. Efforts have been made to obtain the necessary yeast from Mexico, but so far without avail. The matter is now being taken up by the Mycologist and the Analyst to obtain a local yeast with a view to endeavour to ferment local sisal waste, but so far without appreciable success. A yeast isolated by the Mycologist from sisal plants grown in Nairobi fermented cane sugar solution, but not the juice expressed from sisal leaves, in which it would not live. On analysis this juice, proved to be extremely acid, and contained less than 2 per cent. sugar. The experiments were made during the rainy season when the sugar content of sisal juice is at its minimum. Analyses of the sugar content at the end of the dry season are not yet available, but those of the wet season, compared with Yucatan, are very low.—Ann. Rep. 1913-14, Dept. of Agric. British East Africa.—*The Tropical Agriculturist*.

COFFEE.

Coffee in British East Africa.

The history of the rise in the coffee industry is a very interesting one. In 1901, seed of the variety known as *Coffea Arabica* was imported from Bourbon by the St. Augustine Mission and planted out at their Kikuyu Station. The trial proved satisfactory from the point of view of yield, and samples of coffee sent to France were very favourably reported upon. Subsequently a small consignment of Blue Mountain Coffee (*Coffea Arabica* var *Costa Rica*) was imported.

From the above plantation seed was obtained by a number of settlers, and in 1907 the area under cultivation was estimated at between 500 and 600 acres, the largest plantation being that of Messrs. Felix & Favre's Ruaraka Estate, where 60 acres were in bearing at that date. From this time the success of the industry appeared to be assured in the Kikuyu and Kyambu districts, the light loamy soil of great depth, highly ferruginous in nature and well drained, having proved to be eminently suitable not only for the production of heavy crops but also for berries of high quality. The estimated yield from five-year and over trees being 900 to 1,000 lbs. per acre, and the current rate of from £70 to £80 per ton.

The discovery in October, 1912, of the presence of leaf disease due to the rust fungus *Hemileia vastatrix* on two plantations created a temporary check to development. The results, however, of close inspection of these and other plantations which subsequently became infected indicate that the disease is not likely to have the same deleterious effect in the Protectorate as hitherto obtaining in other countries where the humidity is very much greater and the soil not so rich.

The disease is not now dreaded, for it has been proved in other countries that on good and well drained soil, and when the healthy development of the trees is maintained by systematic cultivation and suitable manuring, the parasite causes comparatively little damage.

So far no other serious fungus disease has appeared. Black Blight is not uncommon, but this is easily and effectively dealt with by spraying. Cut worms have proved troublesome in some of the young plantations, and especially, on lands which have only been brought under cultivation shortly before being planted out. This pest, however, can be controlled to a certain degree by spreading green chopped grass or lucerne moistened with a solution of arsenic and sugar on the land.

The following is a statement of the value in rupees of the coffee exported during the last seven years, e.g.:—

1907-08, Rs.4,031; 1908-09, Rs.3,539; 1909-10, Rs.16,012; 1910-11, Rs.44,728; 1911-12, Rs.85,571; 1912-13, Rs.160,199; 1913-14, Rs.275,585.

From these figures it will be seen that the value of the exports have doubled each year, and it is anticipated that for the next few years at least the exports will continue to increase in a like, if not in a greater proportion, for during 1912, 1913, and 1914, large areas have been planted out, not only in the Kikuyu and Kyambu areas, but in the Lumbwa, Muhoroni, and Kericho districts, where the young plantations are exceedingly promising.

It was estimated that in March of this year, 5,000 to 5,500 acres were under coffee. There are still large areas of virgin land equally suitable for coffee cultivation as that which is now under cultivation; but the further development of the industry is dependent on the labour supply.

Hitherto a large proportion of the coffee has been exported in the husk entailing a heavy expenditure in sea freights. It is hoped, however, that before another year elapses the husking machinery which the settlers contemplate erecting in Nairobi (to be run on co-operative lines) will be in working, thereby effecting a saving of freight on about 20 tons of parchment on the 100 tons as now exported.

It is hoped that grading machinery will also be erected by the company, to allow of shipments being sent direct to European markets according to the demands in such for certain grades.

In January last a Coffee Plant Inspector from Jamaica was appointed to advise planters in the various operations connected with coffee cultivation. The appointment has been a popular one, for many of our planters have had but little practical experience of the Industry, and the advice of the Inspector has been, in consequence, much appreciated.—Ann. Rep. 1913-14, Dept. of Agric., British East Africa.—*The Tropical Agriculturist*.

CROP.

Crops and Prices.

We notice in several annual reports and private estimates that stress is laid on the increased acreage expected to come into bearing in the next few years, and that outputs are based on the assumption that new areas will yield (after making allowance for age) at the same rate as those previously under the knife. Not only is this important but doubtful point assumed, but it is taken for granted that the old areas will continue to yield rubber as in past years.

We consider it advisable to point out that areas thinned out to from 50 to 90 trees per acre, will have to give a big increase in yield, per tree, to make up for the total yield previously obtained from areas which carried from 100 to 150 trees per acre. As a matter of fact the increase in yield is not manifest for a considerable period after thinning out is completed. It is not realised that areas thinned out to 50 trees per acre will have to yield from 7 lb. to 8 lb. of dry rubber each, per annum, for all time (which is a long time) if the various estimates are to be realised. This pre-supposes that diseases and pests will practically disappear when once the trees have reached their tenth year, that labour will always be available at something similar to present rates, and that bark consumption and renewal will be up to requirements.

DISEASES AND CROP.

With regard to the liability of Hevea trees to diseases, we take the view that this will increase with the age of the plantations. This may be startling, and may strike some readers as bordering on the pessimistic. But we have never flinched from facing the probable risks inevitably associated with tropical agriculture, and after having weighed the evidence are still of the opinion that the rubber plantation industry can be made into a very

sound one. The disease question has been dealt with by many authorities, and the advice given by that distinguished and far-seeing scientist, Prof. J. B. Farmer should be very carefully studied. Prof. Farmer has told us that there are special dangers incident to any tropical industry carried out under perpetually moist conditions. We all know that fungi require for their best development moisture, heat, and decaying matter, and that a typical plantation provides all these requirements and gives the ideal conditions necessary for the spreading of epidemic diseases. The fungi are assured a permanent food supply over immense areas. The wide stretches of Hevea permanently occupying the land give every opportunity for parasitic fungi to develop, and as the conditions necessary for the spread of these diseases are permanent, we think we are justified in originally stating that in all probability diseases will increase with the age of the plantations. Now, if diseases would only select every alternate tree, there would probably be no very pronounced effect on subsequent crops from the afflicted areas. But we know that in some cases the diseases attack two and three consecutive trees in the same line, and that when this happens a gap is created which can only with very great difficulty be successfully supplied. Every planter knows that it is extremely difficult to establish supplies in an old clearing. We therefore take the general view that diseases—especially those affecting bark—will in future years lead to a decrease in crop from every afflicted area. This loss can be kept at the minimum if proper action is taken.

LABOUR AND CROP.

It is a matter of common knowledge that legislation already put through in the Dutch East Indies and that contemplated by the Indian Government will be such as to make the labour position in the Middle East a most troublesome one. In our various reviews of annual reports we have drawn attention to the number of acres which each coolie has to tend. In some cases one coolie per three acres is all that is required, but in many other cases, in Malaya, Sumatra, and Borneo, we have shown that there is frequently one coolie for from 2'2 to 2'7 acres. When we bear in mind that we have something like $1\frac{1}{2}$ million acres of rubber, we at once realise the enormous importance of the labour supply, if crops are going to be maintained. The old tapping areas demand very careful treatment, and therefore an ample labour force. It is true that women and children are doing excellent tapping work, and their employment will relieve the situation materially, but we think, despite the large labour force now in the Middle East, labour will continue to be short of demand, and that this factor alone will prevent the Middle East as a whole turning out its maximum crops. We think, therefore, that those good people who frame statistics with the view of instructing the public as to the crops they may expect in succeeding years should bear in mind these two factors—diseases and labour—and lay stress upon them. Though we anticipate a smaller total crop than many others, we do not think that this will necessitate a lowering in the value of plantations. The demand for raw rubber will continue to grow until or except some other material is provided which can effectively take its place. So far as we can see, there is no reasonable limit to demand with an advance in civilisation, but there is in sight a limit to production from plantations, and the fact that many years are required before rubber can be brought into bearing only gives further weight to our point. We therefore come to the conclusion that despite any reduction in crop due to diseases or labour, the price for the raw material will probably remain at a reasonable figure.—*The India-Rubber Journal*.

SYNTHETIC RUBBER.

It might be urged that the chemical characteristics of synthetic rubber are of relatively little importance if the material fulfils all the needs of the manufacturer, and this is undoubtedly the correct view to take. Up to the present, however, the quantities of synthetic rubber produced have been so small as not to admit of a comparison being made with the natural material on anything like a satisfactory scale. The Rubber manufacturer knows too well that a substance which might truthfully be called a "tough elastic mass" or "caotchouc-like body" need not necessarily be as good in every way as the product of the plantations in the East.

A glance through one or two specifications to which various rubber articles must conform would quickly convince the reader that a product destined to replace caotchouc for all purpose, must possess properties of a very varied character.

Even if a synthetic body were obtained which could be said to compare favourably with the natural article, the price would obviously become a determining factor in the chance of success; it is here that an industrial process would encounter almost insuperable difficulties. At the time when chemists began to turn their attention towards synthetic rubber the price of this commodity was abnormally high, reaching as much as 12s. 6d. per lb. in 1910. Since then, however, there has been a steady fall, reaching as low as 2s. 4d. per lb. in 1915. This is accounted for by the plantations coming into bearing, the products thereof occupying a very prominent place in the world's markets. The recent growth of the plantation industry, and the very different conditions which a synthetic product has now to face compared with those obtaining in quite recent years, can be seen at a glance from the following tables:—

Plantations—Area Under Rubber.

		Ceylon.	Malaya.
1901	...	2,500 acres.	Nil.
1912	...	230,000 „	621,621 acres.

Tons of Plantation Rubber Exported.

		Ceylon.	Malaya.
1904	...	35 tons.	Nil.
1912	...	6,697 „	18,956 tons.

World's Supply of Plantation Rubber.

1912	...	...	28,500 tons.
1915	...	...	98,000 „

The rapid strides which have been made in the cultivation of rubber will thus be evident, and as there is every prospect of the yields increasing for some time to come, this is bound to react on the price, and it is generally assumed that unless a synthetic product can be put on the market at about 1s. 3d. per lb. there is little hope of the natural material being superseded.

As chemists, perhaps, it would be gratifying to know that another triumph had been won in the industrial field, but, whatever the outcome may be, it is well to remember that the chief factor militating against success is the result of scientific energy expended in other directions, that is to say, in raising the product of the plantation to the highest pitch of perfection.—*The Tropical Agriculturist.*

FERTILISER.

Fertilisers and Agricultural Production.

The January issue of *Blackwood's Magazine* contains an important article by Prof. W. Somerville entitled "Increased Agricultural Production." As indicative of the present position of British Agriculture, the author points out that of the food consumed we produce only one-fifth of the wheat, rather more than half the meat, one-quarter of the butter and margarine, one-fifth of the cheese, and nearly all the milk. The chief factor causing the reduction of the area of land tilled was the great increase in the amount of wheat imported from North America in the 'seventies and 'eighties. In the past forty-three years Great Britain has lost $3\frac{1}{2}$ million acres of tillage crops, including $1\frac{1}{2}$ million acres of wheat, and has produced no more meat, although the milk production has doubtless increased. This fact supports the contention that the area of land under crops may be largely increased without any decrease of stock-keeping.

After contrasting the English and German increase in food-production in the past forty years as shown by the recent Memorandum of the Board of Agriculture, and summarising the recommendations of the English, Scottish, and Irish Committees for increased food production during the war, Prof. Somerville urges that the post-war problem of a large permanent increase in food production is the more difficult to solve. The solution of the problem is complicated by the consideration that if a durable peace is obtained, there will be a long period available for the reconstruction of our agriculture, whilst if only an "armed" peace results from the present conflict, rearrangement will be necessary in the shortest possible time. Given that it is desirable to secure an increase of a million acres of wheat, many consider that this could be effected by guaranteeing a minimum price, which presumably would have to be extended to oats as well as to wheat, since the latter is of quite subordinate importance in Scotland and Ireland.

A rather more attractive suggestion is that farmers should be granted a bonus on the area of grass land converted to arable: this has recently been adopted in France. But there is one way in which an immediate and large increase in production can be effected, namely by using on British land the whole of the ammonium sulphate produced in this country. Of the 400,000 tons of this fertiliser annually produced, 294,000 tons were exported in 1915, and for 1916 the amount was probably about 250,000 tons. If the latter were used on one-fourth of the area under wheat, oats, roots, potatoes, and hay, it would only give 60 lbs. to the acre. Representing sulphate of ammonia in terms of wheat, the amount exported in 1916 is equivalent to $2\frac{1}{2}$ million quarters of wheat—i.e., an addition of more than 30 per cent. to our present home-grown supply. Further, the exportation of fertiliser and importation of wheat require shipping to the extent of 800,000 tons, and result in an adverse trade balance of £4,575,000.

The case for prohibiting the export of ammonium sulphate is enormously strengthened by the reduction in the import of sodium nitrate in 1916. Since the latter decrease has been compensated for by increased use of ammonia, the land must have suffered a reduction in fertility. The 40,000 tons of basic slag exported in 1916 could be used on British land even more easily than the ammonium sulphate. It would suffice to produce 3,200,000 lb. of meat annually for five years, and here again consideration of freight and exchange are in favour of prohibited export. The use of basic slag on second-rate and inferior pastures is the most certain way of increasing production of food, and it is important now, because it involves only a fraction of the man and horse labour necessary for tillage.—*Nature*.

RETROSPECT OF THE YEAR 1916.

The World War.

However long the world war may last, it is probable that the closing months of the year 1916 will mark the highest peak of German accomplishment. That this great military power will fight with valour and skill to the very end of the war, whatever be its length, goes without saying, but the growing belief that the crushing of little Rumania will mark the last successful offensive of the Central Powers has been strengthened by their sudden, absolutely unexpected move in the direction of peace. The conviction that Germany has reached the maximum of her possible achievement is based upon the conviction that if she is beaten it will be because of her failure in man-power; and there are many indications that the diminution in numbers and decline in quality of her effectives, relatively to that of the combined armies of the Entente, has already begun. The investigations of the Intelligence Service of Great Britain and France have shown that, to date, Germany alone has lost a little more or less than 1,500,000 dead; and applying to this figure the low ratio of two to one, for prisoners and those permanently incapacitated by wounds or sickness, brings the total loss for that country to about 4,500,000. The strength of the German army is known, with a fairly close accuracy, to be about 5,000,000, of which 3,750,000 are in the field and 1,250,000 in reserve. Back of this army of 5,000,000 there is absolutely nothing; for it includes two classes of young men that have been called to the colours before their time, and the last combings of those originally rejected. That there has been a deterioration in morale is strongly suggested by the fact that, in the first year of the war, there were practically no German prisoners taken; whereas in the Somme battle alone 95,000 of the pick of the German troops and hundreds of guns of all calibre have been captured by the French and British forces; while at Verdun the gallant French, in two great attacks, have won back in a few days territory which it took Germany as many months to capture, and in these successes the total of German prisoners was not far from 20,000 men.

The most dramatic and unexpected event of the year was the sudden come-back of defeated Russia in a great drive against the Austrian lines, in which she captured over 400,000 men and a vast amount of artillery and stores, drove on to a point well within striking distance of Lemberg and dealt a blow to the Austrian army from which it has never recovered. The Austrians alone on this front are estimated to have lost in prisoners, killed, and disabled, nearly 1,000,000 men. Italy, after meeting and driving back the great Austrian offensive in the Trentino, followed up this success by the capture of the important strategic city of Gorizia and since that success has been driving resistlessly, if slowly, across the difficult Carso Plateau, preparatory to a descent upon the important seaport of Trieste. After a period of inexplicable inactivity, the Allied army at Salonica moved northward, and, chiefly through the valiant fighting of the Serbians, recaptured the important city of Monastir.

For the first time since the commencement of the war the Allies in the west have equalled if they have not exceeded the Central Powers in the extent and quality of their munitionment. As to the degree to which the Russian armies are munitioned, all is speculation. Probably they are accumulating, and will have on hand by next spring, a large store, sufficient to enable them to make a grand offensive of limited duration. The equipment of Russia is the key, or at least one of them, to the breaking of the present deadlock. The bulk of the munitions from America, the surplus

from England and France, the whole output of Japan, and the now unquestionably large output of Russia's new munition factories, combined, represent a very large flow of munitions to the Russian fighting front. All things considered, it is certain that the coming year will see the most furious fighting of the whole war and it is conceivable, though not likely, that a decision will be reached before the winter of 1917. The splendid fighting spirit of the Allied forces and the fact that the British army of 5,000,000 is entering the field in full strength, coupled with the recent reorganisation of France and Great Britain for a more vigorous prosecution of the war, render it very unlikely that the German manœuvres towards peace will have any effect on the military situation other than to convince the Allies that the Central Powers despair of a successful issue of the war.

The great event of the year in the field of naval operations was, of course, the battle of Jutland, concerning which no accurate information will be available until peace has been signed; possibly not for many years after that. We know that Great Britain lost three capital ships and Germany two. These have been officially acknowledged. We know also, by the same authority, that Great Britain lost three armoured cruisers of old design and eight destroyers, also that Germany lost some light cruisers and half a dozen destroyers. The British, however, claim that they have good evidence that they sank half a dozen capital ships and four light cruisers. The fact that Great Britain has always made known her naval losses, gives reason to believe that her estimate of German losses may be also correct. We are informed by an eye-witness who recently visited some of the leading German yards, that she is not building any capital ships, but that her building ways are filled with small craft—some destroyers and a large fleet of submarines. There are indications that Germany intends to press submarine war in 1917 with greater fury and even less regard for international law than she did in the past year. England proposes to meet the risk to her carrying trade by greatly increasing her anti-submarine fleets, by arming her merchant ships, and by directing her vast ship-building resources to the construction of new merchant tonnage—something which she is now able to do, since her naval needs are amply supplied.—*Scientific American*.

DEALING WITH THE ANT PEST.

The Beerwah correspondent of the "Farmers' Gazette" writes:—

"Here is an absolute and simple preventive against the incursion of ants into safes and cupboard; which is guaranteed to give immunity from ant plague, and has never been known to fail:—Take a strip of ordinary tape, say, an inch wide, and, after smearing with castor oil, tie neatly around the legs of safes, tables, &c., where ants are troublesome, and no ant will ever be seen to cross the tape, which must be placed 2 or 3 in. from the floor, and the oil renewed occasionally, say every month or even at longer intervals of two or three months, care being taken to prevent the tape becoming coated with dust. Ordinary prepared or crude castor oil is all that is needed. No other kind of oil must be applied to the tapes."—*Queensland Agricultural Journal*.

CORRESPONDENCE.

Acacia Decurrens Bark.

Dear Sir,—On reading an account of the Nilgiri Planters' Association Meeting held at Ootacamund on January 22nd, I noticed that the question of the value of this Bark was raised, and after it was stated by a letter from the D. F. O. that the Chrome Leather Works were willing to pay Rs.36 a candy of 500 lbs. or about Rs.162 a ton, Mr. Barber remarked that he hoped members would not accept so low a price as from enquiries he had ascertained that the price of this Bark was £75 sterling a ton in London. But one member Mr. Sydenham Clarke said he had already sold at this price as it was the best he could get in Madras. Since this meeting was held I see an advertisement in the *Madras Mail* reading as follows:—

"Acacia Decurrens seed for sale, Price Rs.50 for 10 lbs. no less quantity sold; Present price of Bark Rs. 750 a ton."

Being interested in this tree, and sceptical that such high prices could possibly be realised for its Bark. I have been making enquiries as to the real value of it in the London and New York markets, and have obtained the following information:—From the "Weekly Bulletin of Leather News" published in London December 2nd, 1916. and from the "Leather World" published December 7th and January 11th, 1917 I find the figures are as follows:—

"Weekly Bulletin of Leather News," London, *December 2nd*, 1916.

Wattle Bark 55/56 dollars a ton equivalent to £11 sterling or Rs. 165 a ton say Rs. 37 a candy.

The "Leather World," London, *December 7th*, 1916.

Wattle Bark chopped on spot £12/10/- a ton to arrive London.

"The Leather World," London, *January, 11th*, 1917.

Wattle Bark chopped on spot £13/-/- a ton to arrive London.

With Freight Home at present at 245s. or £12 a ton to be raised to 275s. or £13/15/- from March 22nd, further comment should be needless, but I should very much like to know where these 2 gentlemen who quote the values at £75 sterling a ton and Rs. 750 a ton got their information from, as their statements are somewhat misleading. I think this letter should convince men who have this Bark for sale that Madras is the best market.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 10.]

MARCH 10, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Rubber Planting Community will be glad to hear that Mr. Marsden, Senior Scientific Officer, Rubber Growers' Association, has arrived in Bangalore and will attend the Local Branch Meeting, at Calicut, after which he will proceed on a tour which will be planned for him. It is hoped that the meeting will be fully attended and representative.

From Kenny's Intensive Farming in India we extract a portion dealing with Coffee and Potash as a Fertiliser which should be of interest to all Coffee Planters. In fact, the whole Book is one that we recommend to be added to every Planters' Library.

We publish an Abstract from the Government of India, Department of Commerce and Industry to the Government of Madras about the supply of canisters for the tea trade.

In the absence of our weekly article on Markets, Prices and Statistics we are indebted to the *Indian Planters' Gazette* for the Report of Messrs. Brook, Bond and Co., Ltd., on Tea in 1915—1916.

In our correspondence columns will be found a letter from the Planting Member to the Chairman U. P. A. reporting the resolutions that were passed at the Indian Tea Cess Committee, which he attended on January 31st, 1917.

We regret by an oversight the name of Mr. R. Tait Central Travancore Planters' Association, was omitted from the list of those present at the last Meeting of the Travancore Combined Planters' Association.

Everyone will congratulate Mr. G. N. Frattini, Scientific Assistant for Mysore on having been gazetted to a Commission in the I. A. R. O. He leaves for Umballa to-morrow to attend an Officers' Course.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	58,375	0	2
Mr. F. M. Hamilton	...	...	240	0	0
Mr. W. A. Lee	...	...	40	0	0
Mr. A. C. Morrell	...	...	50	0	0
Mr. J. J. Murphy	...	...	100	0	0
Total	...	...	58,805	0	2

COFFEE.

Potash as a Fertiliser.

A report of the French Consul in Brazil, on the state of trade in that country, contains the following figures of the world's production of coffee in the year 1900-1901. The total amounted to 15,460,000 bags of 132 lbs. each. Of this quantity 11,500,000 bags were grown in Brazil, 1,150,000 in Guatemala, Costa Rica, Mexico, and Nicaragua, 1,050,000 in Venezuela, Columbia, Equador and Peru, 480,000 in the Dutch Indies, 450,000 in Hayti, 315,000 in British India and Ceylon, 200,000 in Puerto Rico and Jamaica, and 900,000 in Padang.

A native of Abyssinia, where it is called 'Boun,' the plant was first cultivated there, and carried across to Arabia in course of time. The Dutch took beans to Batavia and succeeded in growing excellent coffee, with the result that at the present day 480,000 bags are produced in that locality. The Dutch sent a plant to Amsterdam, which was presented to Louis XIV., and from the berries of this the French Colonies were supplied. From Martinique plants were taken to Central and South America, and now Brazil supplies nearly 75% of the world's coffee.

The plant is grown between the tropics, but, near the Equator, principally in mountainous regions.

The virgin soil of the province of San Paulo has such enormous crops that the price of the berry is influenced and almost regulated by its production.

But even in this fruitful region the harvest will lessen rapidly unless the soil is enriched once more by fertilizing.

Hughes calculates that a crop of 7 cwt. per acre removes from the soil:—

Nitrogen	... 20'9 lbs.	Potash	... 23'3 lbs.
Phos. Acid	... 3'7 "	Lime	... 7'2 "

Although this analysis points clearly to the predominance of potash in the berry, the extraordinary thing noticeable is that so little attention is paid to this by a body of men such as our coffee planters, known to be intelligent, active, and industrious.

They have followed one another for years in supplying bone and castor poonac to the soil, perfectly oblivious of the necessity of a complete manure for the fields. That ruin has not come upon them is due to the fact that they get in the bargain what they never demanded *viz.*, a small percentage of potash with the nitrogen in the oilcake. In South America, to which reference is so frequently made by planters, maize was long grown merely to be burned down to supply potash to the coffee plantations.

The variation in coffee (and to a certain extent its price) must be due to the composition of the berry, and it is strange to find capable men of grit and brains omitting a regular analysis of the coffee sent home. It would not be difficult, by a comparison of the annual analyses, to arrive at a correct conclusion as to what ingredients increase and what decrease the value of the produce on the market. I do not think I am far out when I say that the berry suffers from a want of potash, but more so from an accumulation of soda, on which the plant feeds in the absence of a sufficient supply of potash. At the same time, owing to the ill-balanced food placed at its disposal, an inability arises to assimilate a sufficiency of the nitrogen contained in the manure, and the unassimilated portion is merely a waste washed down in the drainage. There are easier ways of getting rid of money.

In Otto's *Agrikulturchemie*, pages 226 and 227, treating on the laws that regulate the assimilation of food by plants, he says:—"Many plants have the power of assimilating, by degrees, certain ingredients, even when these are present in small quantities; as, for instance, maritime plants collect the iodine contained so sparsely in the sea water, to such an extent, that it can be extracted from their ashes. But, following the law of Diosmosis and the consumption of substances in the plant, one can explain how the composition of the ashes of individual plant species can still change, to a certain extent, according to differences of soil and varieties of manuring. For example, one and the same plant will contain a difference in the proportion of its ash-constituents as it is grown on a soil rich in potash and poor in lime or on a soil fairly rich in lime.

Similarly, in artificial soil mixtures, certain plants, *e.g.* turnips, show the same differences, if, in one instance the soil is manured with little potash and much soda, and, for the sake of comparison, another is treated with much potash and little soda. The plants grown on the first field will contain more soda in their ashes, while the latter, on the other hand, will contain more potash. There is nothing remarkable in one metal partially taking the place of another in the ashes of plants. On the contrary, it must appear a matter of course, when one bears in mind that the acids demanded by plants as important means of nourishment, such as phosphoric, nitric and sulphuric acids, that can be only taken up into the plant in the form of salts, are found in combination, at times with more lime, at times with more potash, or some other base. Should the plant in question require one or more of these acids in a specially great measure, it will make use of only one part of the quantity of salt-like compounds, the real acids which are worked into the sap by the cells and changed into other substances, while the basic parts, taken up at the same time, accumulate somewhere in the plant without being used as such in the compound."

In the "*Annales de la Science Agronomique Francaise et Etrangere, Neuvieme Annee, 1892, Tome 2, Etude sur quelques station agronomique Allemandes*," pages 324 *et seq.*, in the discussion of the fertilizing effects of nitrate of soda as compared with sulphate of ammonia, when treating of Professor Wagner's experiments with these, we find:—"It has often been advanced that manures containing salts of soda render the phosphoric acid and potash of the soil more capable of being assimilated and also tend to render the growth of vegetation more active and to increase the returns of the harvests. Professor Wagner does not deny this dissolving power of soda but does not believe it has the influence so often attributed to it, nor does he allow that the good effects obtained are due to the use of soda as a manure.

The experiments of growths in sand and water prove that plants have no need of soda for their normal development. He was able nevertheless to show that soda favoured certain phenomena in the nutrition of plant-life; for it may be in a condition to take part in certain functions, which, in its absence, are carried on by potash alone. This reciprocal replacement of the chief minerals is not a mere hypothesis purely gratuitous.

Emile Wolff has proved that Silicic acid, for example, is able in certain cases and to a certain extent, to be a substitute for phosphoric acid. There is consequently nothing astonishing in the fact that soda behaves in a similar manner with reference to potash; but it is permissible to judge, *a priori*, that if any such substitution is possible, it is only partial, because plants absolutely require potash to enable them to live. It was to verify these hypotheses that Professor Wagner undertook these experiments. From a study of them we come to the conclusion that,

in soils relatively poor in potash but containing all the other constituents of plant-food, in sufficient quantity, the cause of the superiority of the Nitrate of Soda over Sulphate of Ammonia is due to the soda carried into the plant at the same time as the nitric acid by the nitrates. In soils sufficiently rich in potash the two salts produce effects which are equal. The action of the soda is illustrated by the contents of potash and soda in three harvests.

1. If sulphate of ammonia produces an increase of return equal to 100, it takes from the soil 5 grs. of K. O.

2. If sulphate of ammonia plus muriate of potash produces an increase equal to 132, it takes 5 grs. of K. O. from the soil and 6'6 grs. of K. O. from the manure.

3. If sulphate of ammonia plus common salt produces an increase equal to 147, it takes from the soil 6'6 K. O. and 12'4 of Na. O. from the manure.

4. If nitrate of soda produces an increase of 137, it takes 4'7 of K. O. from the soil and 1'7 of Na. O. from the manure.

5. If nitrate of soda plus muriate of potash produces an increase of 160, it takes 4'7 K. O. from the soil and 6'1 K. O. and 11'4 of soda from the manure.

In other words :

1. In soils not relatively rich in potash, soda exercises a favourable influence decidedly marked in the development of plant-life. Such soils are in fact able, whilst utilising the same quantity of potash, to produce harvests half again as great when treated with common salt.

2. Without being able to completely supply the place of potash, soda is still able to replace it to a certain extent. The experiments show two increases in harvests, almost equal (132-137), which contain vastly different quantities of potash and soda.

3. Soda determines a better utilization of the potash of the soil which is at the disposition of the plants. Messrs. Champion and Pillot, in their many analyses of vegetable ashes placed before the Academy of Science, have shown that the mineral bases can, to a certain limit, reciprocally replace each other in the accomplishment of the vital functions of plants, but they have not deduced from their observations any practical rule concerning the employment of the manures.

From what we have seen it follows that two unequal quantities of nitric acid helped by equal quantities of soda produce the same effects. To find an explanation of this seemingly paradoxical fact we much consider the co-efficients of utilization.

An examination of the results of the experiments alluded to above also proves,

1. That potash and soda, whilst favouring the growth of plants, help to a better utilization of nitrogenous manures.

That under the influence of soda, the co-efficient of utilization of the nitrogen of sulphate of ammonia can equal that of nitrate of soda, though, as a rule, it proves inferior by 10 or 15% in other words, the plants which have received nitrate of soda and those which have received sulphate of ammonia plus soda absorbed almost the same quantities of nitric acid, though different quantities were placed at their disposal.

Mr. Warrington made two series of experiments, in the one of which half the plots were fertilised with nitrate of soda and the other half with the same quantities of nitrogen in the form of sulphate of ammonia. In the other series the plots were similarly treated but they received, in addition, phosphates and salts of potash. The result proved that the application of potash increased the effects of sulphate of ammonia just as an addition of

soda would have done. Warrington explains the superiority of nitrate of soda by saying that it exercises a dissolving action on the principal plant-foods of the soil, and renders them more easily assimilable. What we have said of the role of soda shows that this explanation is not correct.

Nitrate of soda is superior to sulphate of ammonia not because it renders the potash of the soil more assimilable but because the soda is absorbed by plants and is able to carry out such vital functions as those for which potash is not indispensable."

I have laboured this point because.

1. Every planter ought to know the necessity of potash for all plant-life.
2. The very analysis of the berry shows the needs of the coffee bush.
3. The use of potash helps to a better utilization of nitrogenous manures.
4. Practically no potash, save the small amount found in castor cake, has been used as a manure on coffee fields in India.
5. The plant should be prevented from taking up too much soda, which will occur in the absence of a sufficiency of potash.
6. The soda contents very probably lower the taste and the price of the berry, and it is time that a thorough enquiry be made into this question.

A planter in the Shevaroy Hills sent a question to the Presidency Manure Works, Madras, which at first appeared a decided puzzle. He was a careful man, who knew his work and found his coffee plantation in apparently the best order, the bushes in prime condition and bearing heavily. Yet the price the berry fetched was remarkably lower than formerly. Other planters may object that the question was simple and explain it by the produce of Brazil, etc. These were evidently points known to and not forgotten by the Shevaroy Planter. It so happened that he had kept various analyses of his produce with the prices fetched, and a study of these could lead to no other conclusion than that variations in price accorded with the variations of potash and soda contents, falling with the fall in potash and rise in soda, and rising with the increase in potash and the fall of soda. There are no doubt many estates carefully manured with bone and castor cake and, perhaps occasionally, with nitrate of soda. These will probably show well-preserved bushes bearing fairly well. Is the price the same? Is the falling price entirely due to over-production in Brazil? Or has East India coffee lost its former pre-eminence on the home markets? Another question on manuring, that ought to exercise the minds of owners and managers of coffee estates, is the introduction of superphosphate to take the place of bonemeal as a manure. There is not an over-abundance of lime in coffee soils, and it does not appear wise to introduce sulphuric acid, which, uniting with the available lime, changes it into gypsum. Dr. Aitkin knew the full meaning of what he said, when, in addressing the Fife Farmers Club, he warned them against sulphuric acid, assuring them the less they used of it the better it would be for them at any rate.

Experiments carried out under the most varying circumstances in countries wide apart, alike at experimental stations and on immense estates, all prove the utility of bonemeal and potash as a good fertiliser for coffee.

Whether tried at the Horticultural Society's Gardens at Calcutta or on the vast plantations of Brazil, phosphoric acid, in a form not too soluble, in other words, bonemeal, proves an excellent manure, especially if aided by potash. The latter, besides acting as a fertilizer itself, hastens

nitrification, and thus the plant is provided with its chief food constituents, nitrogen and phosphoric acid from the bone, and potash from either kainit, muriate or sulphate of potash, and all these foods are supplied at one and the same time.

There is scarcely a European planter in the country, but has his own theory about manures; but in all the correspondence to be found in the planters' newspapers, the war seems to wage invariably on the excellence in utility or the harmfulness of a fertilizer containing one or at most two of the chief constituents of plant-food. It is seldom we hear of the use of a complete fertilizer. From Guatemala we have the records of experiments carried out on the estate of an experienced German planter, and his words might carry some weight in India. He says: "Phosphoric acid increases the bearing but, if applied in large quantities in an easily soluble form (such as superphosphates), it gives an excellent return for one or two harvests and kills the plant." Potash shows its effects on wood and leaves. In the Fincas the adjoining fields are burnt, and supply the requisite manure. But if this be not done, the want is quickly noticed. Nitrogen produces strong, fleshy branches, wood and dark leaves, but causes the fruit to be long in ripening.

Lime unites for a time the properties of potash and phosphoric acid. Like potash it produces long woody branches, and like phosphoric acid it causes an early ripening of the fruit, and decomposes the soil.

The success of bonemeal with coffee is endorsed by almost every planter. The Secretary of the Horticultural Society of Calcutta shows results far better from bonemeal than guano could show.

Unfortunately coffee is not very widely grown in India and planters have been so badly hit by the fall in prices that they fear to add anything to their expenditure, forgetful that the addition brings with it a compensation in increased returns and an improved soil.

When prices have fallen in the decade 1897 to 1907 by nearly 40 per cent. it seems a cruel cynicism to suggest further expenditure. But there need be none if the manures are only properly balanced and the experiments carried out on a small scale at first. The amount of phosphoric acid, after years of manuring with bone, must be fairly large in the soil and no harm would result by a diminution of this plant-food in the manure and an addition of potash of an equivalent price. After results from these special plots have been tested and proved satisfactory, it may be found useful to spend slightly larger sums on the very necessary potassic ingredient that helps to form a complete fertilizer.

Comparing Bell's analysis of Mocha and East Indian Coffee, raw and roasted, there are two points that especially attract our attention, *viz.*, the greater amount of nitrogenous or colouring matter in the alcohol extract found in Mocha (amounting to 2.59 per cent. in the raw and 1.47 in the roasted), and the smaller amount of albumen which is 1.36 in the raw and 1.90 per cent. in the roasted coffees.

The caffeine and caffeic acids are practically the same in both coffees roasted, there is little difference in the saccharine matter when roasted, the dextrine scarcely varies, and the difference in the ash, as also in the moisture is slight.

Experiments tending to increase the alcohol and lower the legumin (albumen), may bring about analyses which practically agree, and it is possible thus to raise the value of East Indian coffee to the level of Mocha.

Bell's analysis:—

Constituents.	Mocha.		East Indian.	
	Raw.	Roasted.	Raw.	Roasted.
Caffeine ...	1'08	0'82	1'11	1'05
Saccharine Matter ...	9'55	0'43	8'95	0'41
Caffeic Acids ...	8'46	4'74	7'58	4'52
Alcohol Extract containing Nitro- genous and colouring matter ...	6'90	14'14	4'31	12'67
Legumin or Albumen ...	9'87	11'23	11'23	13'13
Fat and oil ...	12'60	13'59	11'81	13'41
Dextrin ...	0'87	1'24	0'84	1'38
Cellulose and Insoluble colouring	37'95	48'62	38'60	47'42
Ash ...	3'74	4'56	3'98	4'88
Moisture ...	8'98	0'63	9'64	1'00

To the planter on the west coast who dreads the few days between flowering and fruiting when rain is badly needed, I cannot too strongly recommend a combination of castor cake and of bone and potash salts, as the last will absorb any moisture in the air, and draw up the moisture from the soil below and bone retains the moisture longest of all mineral matters in the soil. It should not want much to convince the planter of the utility of muriate in this respect as it contains 7 to 20% of chloride of sodium or common salt and 52 to 56% of potash. The potash has been proved to accelerate the decomposition of bone, and both combined have an advantage such as few manures can show, *viz.* they present to the plant all the three necessary food ingredients at the same time and in a very well-balanced proportion.

In treating of coffee I have not dealt with the cultivation, for experienced farmers cannot be taught their own business; nor have I entered on the vexed question started round the Leeming system, the weeding of gardens, etc.

At the same time I should like to draw attention to an extract from a letter from G. F. Halliley, that appeared in the January issue of the *Tropical Agriculturist* of the year 1905.

In it he says:—"Early in the 'seventies' Mr. Crewell sent some ashes of the white weed to Baron Liebig for analysis, and Baron Liebig pronounced them to be the essential food of the coffee tree. Later, when the coffee-planters wrote to him for a cure for leaf disease, he advised them to grow an intermediate crop, and I advocated that that crop should be the essential food of the coffee tree the white weed."

It would be interesting to learn more about this weed, and how far it serves in place of a rotation on the land, whether both the weed and the coffee improve when grown together, and if the presence of the weed is a preventive against leaf disease. It is a pity that nothing further has been done so far to elucidate so important a question.

My object has been, as in all the chapters dealing with Manurial Problems in India, to restrict myself to the question of manures, and, in treating of fertilizers for coffee, I very naturally drew attention to the necessity of potash in a complete manure, its utility in helping plants to assimilate nitrogen and the important question of the amount of soda taken up by the berry in the absence of a sufficiency of potash and the still more important point as to the variation in the taste and price that may be due to an increase in the soda contents and a diminution of the potash.

It is to be hoped that planters will seriously consider this last point and insist on analyses that may cause its elucidation.—*Intensive Farming in India.*

GOVERNMENT OF MADRAS.

Received.....1917.

Registered.....1917.

ABSTRACT.

Communicating to the Board of Revenue letter from the Government of India on the subject of the use of materials other than tin for packing tea.

Financial (Separate Revenue) Department.

G. O. No. 192, dated 16th February, 1917.

Read the following:—

Endorsement of the Government of India, Department of Commerce and Industry, to the Government of Madras, No. 1544-1, dated 7th February, 1917:—

Letter from the Government of India, Department of Commerce and Industry, to the Government of Bengal, Financial Department, No. 419-I-D., dated 28th December, 1916:—

In reply to your letter No. 5343 Com., dated the 13th December 1916, with enclosures, about the supply of canisters for the tea trade, I am directed to say that an inquiry has been made of the Secretary of State for India as to the future position of tin plate supplies. The result of the inquiry will be communicated to you in due course.

2. Meanwhile I am to suggest that you should instruct the Calcutta Tea Traders Association to employ other materials for packing tea in all cases when climatic conditions do not necessitate the use of the canisters, and to make such arrangements with their agencies, for the distribution of tea in India as will secure the conservation and return of the maximum number of empty tins.

A copy is forwarded to the Government of Madras for information.

ORDER:—Communicated to the Board of Revenue.
(True Extract)

R. H. CARTENEY, for Chief Secretary.

The following communication has been received from the Government of Madras:—

ABSTRACT.

Communicating to the Chambers of Commerce, Government of India's press communique on the subject of the prohibition of the importation of various articles into the United Kingdom.

Financial (Separate Revenue) Department,

G. O. No. 290, dated 6th March, 1917.

Read the following papers:—

Press Communique of the Government of India, Department of Commerce and Industry, dated Delhi, the 26th February 1917:—

Owing to the necessity for economizing tonnage the Home Government have now issued a proclamation prohibiting with effect from 23rd February 1917 the importation of various articles into the United Kingdom. A list of prohibited imports is being published in a Gazette Extraordinary. With regard to the articles in which India is principally interested, *viz*, raw jute and tea, the Government of India are issuing a Notification prohibiting the export to the United Kingdom on private account. In the case of raw jute the visible supplies in the United Kingdom are estimated to be sufficient for the requirements of 1917 and the Government of India regret that it will not be possible to allow export to the United Kingdom on private account for the present. Export of tea however will be allowed to the extent of 7,000 tons monthly on the average, this figure being inclusive of tea purchased by the War Office.

ORDER:—Communicated to the Chambers of Commerce.

(True Extract.)

J. P. BEDFORD, Acting Chief Secretary.

TEA.

Tea in 1915-16.

TO THE EDITOR, "INDIAN PLANTERS' GAZETTE."

Dear Sir,—During the first few months of the war, some firms boasted of their ability to carry on "business as usual" and declared their intention of doing so. This has, however, been found impossible, owing to the altered conditions under which we are living. These altered conditions have affected the Tea Trade as well as every other branch of commerce. The only thing which does not seem to alter is the habit of drinking tea, which shews no sign of diminution. In fact, if it were possible to obtain reliable figures, it is probable that we should find that *per capita* consumption had increased. Such figures are, however, unobtainable.

It is evident that in the *United Kingdom* the enhanced duty has not caused any diminution in consumption, as is usually the case when the tax is raised. When the duty was raised during the Boer War, although it was only raised to 8d. a pound and that only for one year, consumption was sensibly reduced. When the tax was lowered to 6d. consumption began to recover. At the present time, although the increase is much larger, from 5d. to 1s. a pound, apparently no one is taking less tea than before the war. This is doubtless partly due to the restrictions placed on the sale of alcohol, but also greatly to the prosperity of the working classes, whose high wages enable them to buy as much tea as they like, no matter how high the price.

Board of Trade figures for Home Consumption during the years 1914-15 and 1915-16 are as follows: the period being from 1st December to 30th November:—

	1915-16.		1914-15.	
	lb.	Percentage.	lb.	Percentage.
India	...188,875,000	62'62	182,332,032	57'98
Ceylon	... 82,507,200	24'86	90,138,008	28'66
Java and other countries...	24,393,000	9'55	29,153,819	9'27
China	... 8,492,000	2'97	12,867,908	4'09
Total...	304,177,200	100'00	314,491,767	100'00

To the consumption in 1915-16 must be added 30,354,116 lbs. of all growths cleared from bond for the use of H. M. forces, making the total 334,531,316 lbs.; to the 1914-15 consumption must be added 14,188,845 lbs., making the total 328,680,612 lbs.

According to Russian Custom House figures just issued, the importation of all teas into *Russia*, over all frontiers, during the nine months ending 1st October 1916, amounted to nearly half as much again as during the same period of 1915. The quantity of brick tea was somewhat less, of tablet tea considerably more and of green also rather more than in the previous year. Probably much of the tea sent to Bombay and Persia eventually reaches *Russia*, possibly without paying duty. An excise tax was imposed on all tea, including that grown in the Caucasus in September 1916.

Consumption has greatly increased in *France* since the war began. We cannot state exactly how much British-grown tea has gone to that country, as a good deal has been brought through the British Government and does not appear in any returns. Direct exports from China to France have greatly increased during the year.

During the nine months ending 1st October, 1916 *Australia* and *New Zealand* took 22,863,465 lbs of British-grown tea against 27,032,151 lbs. in the corresponding months of 1915. The reduction is mostly in Ceylon tea. The quantity of Java tea imported was somewhat larger than in the previous year.

Imports of all tea, particularly of British-grown, into the *United States* shew a considerable advance during the year under consideration. The total imports to 1st July were 109,865,179 lbs. The greater part of this amount, over 52,000,000 lbs. came from Japan and Formosa; India and Ceylon contributed about 34,000,000 lbs. and China about 20,000,000 lbs.

South America took more British-grown tea during 1915-16 than in 1914-15, as did also *Egypt* and other parts of *Africa*.

In *India* the natives are being educated to like tea and also to prefer really good tea to the rubbish sold in the bazaars. The Tea Cess Committee has allotted a considerable sum to this object.

So far as it is possible to judge, therefore, it appears that Consumption is increasing all over the world. Now, how do matters stand with regard to Production?

For some years past, Consumption and Production have kept fairly even, neither has greatly exceeded the other. It has been the same during the year under consideration. The increased consumption has been easily provided for, as the crops have been good. The heavy crops have not at any time overstocked the markets because of the difficulty of transit, both from the gardens to the ports and from the countries of production to those of consumption. There has been no scarcity of tea—which was at one time foretold—and on the other hand, although the ships have to pass through waters infested with danger, comparatively little tea has been lost. The only large amount which failed to reach its destination was 2,000,000 lbs. of Ceylon tea which was on board the *Clan Campbell* when she was sunk by a submarine in March 1916. The cost of transit has enormously increased, but the high prices obtained have enabled the planters to make fair profits in spite of the greatly increased outlay.

The world's output for the year 1915-16 surpassed all previous records. India, Ceylon and Java produced 100,000,000 lbs. more than during the previous year.

The *Indian* crop for 1915-16 was 55½ million pounds in excess of that of 1914-15. The quality of the crop was in no way remarkable, seldom rising above mediocrity. The supply of fine tea was very limited. It seems probable that the 1916-17 crop will be smaller than the 1915-16 one and shipments will most likely shew a considerable reduction owing to freight difficulties. The reduced number of ships available for the carrying trade has already had this effect. Large quantities of tea are waiting for shipment, both at the gardens and also in the warehouses at Calcutta and other ports.

Early in 1916 the Indian Government imposed an export duty of Rs.1-8 on every 100 lbs. of tea. This is equivalent to about ¼d. a pound and was calculated to produce £300,000 a year.

Ceylon produced a somewhat smaller crop in 1915-16 than in 1914-15. The quality of the crop was on the whole good. During the latter months of the year exports fell considerably. Tea maintains its position as the most valuable industry of Ceylon. For some years it seemed as if rubber would supplant it, but this has not come to pass.

Indian merchants are in a much better position than those of Ceylon with regard to freight charges. Owing to an agreement made with the shipping lines five years ago, Indian tea has brought to the United Kingdom during the war at a charge of Rs.47-6 a ton measurement, while Ceylon merchants have had to pay rates which have gradually risen to Rs.245 a ton. The average price of Indian and Ceylon tea is generally about the same on the London market—indeed for several months during 1916 the Indian price was rather higher than the Ceylon—so that Indian growers have had a great advantage. The five years' agreement expires in September, 1917. In the meantime some amendment is under discussion.

The *Java* crop for the year under consideration was much larger than was expected. The total shipments were 96 million pounds, an increase of 12 million over those of 1914-15. About a third of the whole amount was shipped to Holland as usual. Part of this was probably diverted to the United Kingdom. Russia took half as much again as during the previous year. The crop quality was on the whole good. The soil of Java is particularly well suited to the production of tea.

Shipments of tea from *China* shew a reduction throughout the year. To the middle of July 1916 the amount shipped from China to the United Kingdom was only 3,269,886 lbs., against 8,485,140 lbs. to the same date in 1915. The world's consumption of tea has about trebled during the last thirty years, but China's exports have almost stood still. India and Ceylon have almost entirely captured the markets of the United Kingdom and are gaining ground in Russia and America. A great deal of the China tea which comes to Great Britain is not fine tea, to be sold as China tea, but very poor stuff for making the lowest priced blends.

There is, however, one part of the world where the best and finest China teas find a ready sale and that is in the non-alcoholic Mahomedan countries, Turkestan and other parts of the Middle East. This trade was for a long time entirely managed by Parsees from Bombay, but is now, partly in the hands of Russians.

The *Japan* crop was 6,000,000 lbs. larger than in 1914-15. As usual almost the whole of the amount exported went to the United States and Canada. The quantity received by the United Kingdom is negligible and finds no place in official figures. Attempts are still being made to popularise Formosa tea in this country, but so far have not had much effect.

Sumatra steadily increases her contributions to the world's tea-cup. The price of her tea is regularly quoted by the London brokers, together with the prices of teas from India, Ceylon, etc. The United Kingdom received twice as much tea from *Sumatra* during 1915-16 as in 1914-15. Quality is well maintained. The industry has the advantage of having been managed, from the beginning, by experts, who have profited by the experience of growers all over the world.

The cultivation of tea in *Natal* and *Nyasaland* makes fair progress. In the latter protectorate the area under tea has lately been extended into the Blantyre district. The industry is arousing increasing interest in British East Africa.

Tea continues to be cultivated in *Southern Russia*. Most of the plantations, quite 95 per cent., are in the Batoum district, where the area under tea increases at the rate of about 135 acres a year. About 80 per cent. of the area has been planted with Chinese seed, the rest with Indian and Japanese. The Chief Administration of Indirect Taxes, in a memorandum on the Production of Tea, suggests that it would be advisable for the Government to take over its cultivation entirely, to construct large factories and develop the Trans-Caucasian district generally, so that better tea might be manufactured and the cost of working and also of transit be reduced. At present it costs more to manufacture tea in Russia itself and convey it to Moscow than to bring it from India, Ceylon or China to that city. The respective prices in Moscow are: Indian and Ceylon tea, 13½d. a lb.; China, 11d.; Russian, 17½d. It is quite evident that private enterprise is not able to deal with the industry in such a manner as to make it a national benefit.

Yours faithfully,
BROOK BOND & CO., LTD.

16th January, 1917.

—*Indian Planters' Gazette.*

CORRESPONDENCE.

Ootacamund,
22nd February, 1917.

THE CHAIRMAN,

U. P. A. S. I.,

DEVARSHOLA.

Indian Tea Cess Committee.

Dear Sir,—I have to inform you that I attended a Meeting of the Committee on the 31st January.

There was not much business before the Meeting, but what there was, was of importance.

The following Resolutions were passed:—

1. That a recommendation be made, by the Indian Tea Cess Committee to the Government of India, in terms of the proviso to Section 9 of the Indian Tea Cess Act of 1903 to the effect that the period of the Currency of the Act should be extended to 31st March 1923.

2. That a sum of £3,000 be expended on advertising Indian Tea in the United Kingdom during the year 1917-18.

3. That a sum of £5,000 be expended on advertising Indian Tea in the United States during the year 1917-18.

4. That a sum of £15,000 be expended on advertising Indian Tea in India during the year 1917-18.

In regard to No. 1 the Meeting was unanimous.

Opinion was somewhat divided in regard to expenditure in the United Kingdom and America, but there was no opposition to the resolutions and personally I feel that the reduction £6,000 to £3,000 in one case and £10,000 to £5,000 in the other are steps in the right direction.

The expenditure of £5,000 in India during the past 12 months has shown results better than could have been anticipated and I feel sure that India promises the best field for the outlay of Cess Funds.

Mr. Newby addressed the Meeting and put forward some interesting points, and I give the following extracts:—

"With the exception of Calcutta not more than four months has been devoted to any town and the following list, showing the number of shops in existence before we started work and the number of shops we have succeeded in adding will give you some idea of the shops that can be opened in a short space of time:—

Towns.	No. of shops before starting work.	Since opened.
Madras	239	166
Benares	5	101
Cawnpore	17	71
Trichinopoly	13	37
Lucknow	11	93
Chittagong	58	34
Mysore	32	13
Delhi	55	103

"As most of my time has been spent in Calcutta, I have been able to keep strict observation. About a year ago when I took a census there were 444 shops selling Tea, since then my representatives have been the means of adding a further 382 shops, which only brings the total to 826; and yet I have just taken a census and find that there are now 1,124 shops."

Another point of interest is that India has come to third place in the list of countries consuming Indian Tea and roughly consumption has increased from 15 Million lbs. in 1911/12 to 41 Million lbs. in 1915/16. These internal figures however are not so accurate as the export figures, but we can check them to some extent with the Coasting Trade Returns and in these we find that the imports of Indian Tea into Burmah have increased from $9\frac{1}{2}$ Million to $13\frac{1}{2}$ Million in the same period.

Yours faithfully,

(Sd.) E. F. BARBER.

TREE WOUNDS AND DISEASES.

Mr. A. D. Webster, whose competence to write on the subject is well-known, has produced an interesting and valuable work on the methods of preventing loss of trees affected by wounds and diseases.

As the author points out, although more care is taken now to preserve trees of historic or other interest, there is still need for a wider understanding of what may be done to save trees threatened with premature decay. Examination of trees in Epping Forest, Sherwood Forest, Burnham Beeches and elsewhere proves that many valuable trees "are crumbling to ruin for want of timely attention in the matter of pruning, bracing, or filling the cavities of both branch and stem."

The treatment of hollow trunks is the first subject to which the author gives attention, and his discussion of the subject is both practical and suggestive. The object aimed at may be one of several: to arrest the decay by removing the cause, to prevent wood-destroying organisms from gaining access to the tissues, to strengthen the trunk or branch, or to improve the appearance of the tree.

The filling should be preceded by an antiseptic treatment: after clearing away all decayed matter, the interior should be scraped with a rough brush, and when dry painted with one or two coats of creosote or carbolineum, and finally filled up with a concrete consisting of 1 part Portland cement and 3 of clean gravel and sand. A coat of coal tar on the top of the dry creosote helps the concrete to adhere to the wood.

For dressing wounds Mr. Webster recommends coal tar or zinc paint, thinly applied; to prevent these substances from running on the adjoining bark a little finely powdered slate or wood ash should be mixed with the tar or paint. Beneath this layer the natural regeneration by callus formation goes on quite well, and thus the tree is bandaged, as it were, whilst it slowly heals itself.

Another mixture for filling consists in sawdust (4 parts) and asphalt (1 part), and being more elastic is better than concrete for filling trunks or branches liable to be swayed by wind.

The author gives valuable hints on suitable methods of supporting heavy or diseased branches, and on the treatment of injured bark. How much may be done by timely and judicious pruning is illustrated by the rejuvenescence of the old and neglected Spanish Chestnut trees in Greenwich Park, the Oaks at Richmond and the Elms in Kensington Gardens and Regent's Park. The many fungous parasites of trees are well illustrated and described, as also are the insect pests and their remedies. The book is written in a style only too rare in scientific and technical books; it is businesslike in its simplicity and directness, and passes successfully the highest tests to which such a work can be put, namely, that it is always instructive and never tedious.—*The Gardeners' Chronicle*.

SCIENTIFIC DEPARTMENT U P. A. S. I.

Scale of Fees for analysis in the Bangalore Laboratory

A.—SOILS.

	Rs.
1. Complete Chemical Analysis, including the available Potash and Phosphoric Acid ... ..	...40
2. Mechanical Analysis ... ..	...10
3. Complete Chemical and Mechanical Analysis ... ..	...50
4. Calcium carbonate and oxide content ... ..	...10

B.—FERTILISERS.

1. Potash in Potassic Fertilisers ... ..	... 8
2. Phosphoric acid, total and citrate soluble, in Phosphatic Fertilisers ... ..	... 8
3. Organic Matter, Insoluble Matter, and Nitrogen in Poonacs, &c. ... ..	... 6
4. Organic Matter, Insoluble Matter, Nitrogen, and Phosphoric acid in Bones, Fish, &c. ... ..	... 8
5. Complete Analysis of Fertilisers such as Composts, Cattle manures, &c. ... ..	...20
6. Complete Analysis of Lime, Limestones, and Slaked Lime ... ..	...10

Half the above rates will be charged to all Members of District Planters' Associations.

For methods of taking samples of Soils and Fertilisers and the quantities to send for analysis see *Planters' Chronicle* Volume X. pages 207 and 216.

All samples for analysis should be sent plainly labelled to "The Planting Expert, 25, South Parade, Bangalore," and should be accompanied by a covering letter giving full information about the sample and the analysis desired according to the above table. Fees should be remitted to "The Secretary of the United Planters' Association of South India, 25, South Parade, Bangalore."

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 11.] MARCH 17, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The serious situation in which the Prohibition of Coffee into the United Kingdom has placed all interested in coffee planting is occupying the attention of all, and at the request of the Chairman of the United Planters' Association a short account has been given of what has been done and what is about to be done. Though the skies look gloomy, we have no doubt but that the prospect will brighten shortly. No body of men have faced crises in the past so gallantly as coffee planters, and we advocate calmness and courage for the future: both of which are characteristics of the Planting Community.

We publish from *The Times Trades Supplement* an article on Scientific Assistance in Rubber and its importance on the Plantation by Professor Bretland Farmer, F. R. S., and as a corollary to it we print the article by Charles Emerson, Chairman of the Rubber Growers' Association, on its aims and objects.

Our correspondence page contains a letter from the Honorary Secretary of the South Travancore Planters' Association enclosing a reference to the late Mr. J. S. Valentine.

We have also, with much regret, to report the sudden death of Mr. George West, of Chennapara Estate, Mundakayam, after a short illness. He was Honorary Secretary of the Central Travancore Planters' Association, whose unfailing courtesy in our dealing deserves recognition at our hands. His death is lamented by a wide circle of friends who realise that his place will be hard to fill.

We are glad to be able in this week's issue to congratulate another young coffee planter, Mr. E. H. Young, of Soondhully Estate, Belagodu, Mysore, on having received a commission in the I.A.R.O. He has gone to join the class of officers assembled at Umballa.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	53,805	0	2
Mr. A. J. Wright	...	80	0	0
Mrs. Raikes by sale of Ties	...	12	0	0
Total	...	58,897	0	2

COFFEE.**Prohibition of Coffee into the United Kingdom.**

On the publication of the news that Coffee was to be prohibited from import into the United Kingdom, the Secretary of the U. P. A. S. I. was approached both by telegrams and letters, from all interested in Coffee Planting—both Planters and Curing Firms, suggesting that His Excellency the Viceroy should be wired to, respectfully pointing out that even the temporary prohibition especially affects planters, as the West Coast Ports would be closed for the monsoon at the end of May and not open again until the middle of September, which would result, on account of the damp heat of the climate, in the serious deterioration of the bean, and that the prohibition would dislocate all finance and work on estates, and affect thousands of labour and others involved in the question. That the quantity to go forward was insignificant compared to the serious harm done, and that possibly the difference in shipping would amount to at most two steamers and urging a concession of at least two months. In this form the unanimous request of planter and Curing agents reached the Secretary, who at once wired to the Chairman this consensus of opinion on the 28th February. The Chairman acting immediately in the name of the United Planters' Association, wired to His Excellency the Viceroy as follows:—

"I humbly point out that temporary prohibition import coffee will especially affect coffee planters. As West Coast ports will be closed for Monsoon at end of May and not open again till middle of September stocks will deteriorate owing to damp heat of climate on West Coast. Prohibition will dislocate all finance works on Estates affecting labour. Quantity to go forward insignificant in comparison to harm done. Impossible make the difference of one steamer load. Urge concession at least 2 months. I request wire Imperial Government for concession in addition temporary import."

And followed it up with the following letter:—

"Daverashola Estate, Devarashola, P. O.,
Nilgiris, 1st March, 1917.

"To

The Right Honorable

LORD CHEMLSFORD, G.M.S.O., G.C.M.G., G.M.I.E.,

The Viceroy and Governor-General of India,

Delhi.

"My Lord,

"I have the honour of confirming the following wire sent you to-day reading:—

"I humbly point out that prohibitive import Coffee will especially affect coffee planters. As West Coast port will be closed for monsoon at end of May and not open again till middle of September. Stocks will deteriorate owing to damp heat of climate on West Coast. Prohibition will dislocate all finance works on Estates affecting labour. Quantity to go forward insignificant in comparison to harm done. Impossible make the difference of one steamer load. Urge concession at least two months. I request wire Imperial Government for concession in addition temporary import."

(Signed) J. S. NICOLLS,

Chairman;

United Planters' Association, Southern India.

"Considering the urgency of the matter, I have taken the liberty of direct representation, instead of going through other channels which in all ordinary cases would be done, and submit my humble apologies for the diversion in procedure.

"Coffee—is a crop that is harvested only during 3 months of the year, and is all shipped by the end of May."

"Owing to the want of a harbour on the West Coast, shipping during monsoon is a very doubtful possibility. Coffee very soon deteriorates on the the West Coast after it has been cured and early shipment is of vital importance.

"The Coffee Planters' crop comes in towards the end of his Financial year and he is dependent on being able to realise on same for the payment of his labourers.

"The Coffee Planter is in that one respect adversely situated to the Tea or Rubber Planter, whose crops are harvested in all months of the year and it is with this fact before me, that has necessitated me representing the urgency of reconsideration of prohibition for 2 months.

"Whilst fully recognising peaceful submission and that our fullest powers in all lines must be given to our country's need."

"I remain, My Lord,

"Your Lord's Most Obedient Servant,

"(Signed) J. S. NICOLLS, *Chairman*.

"United Planters' Association of Southern India."

Which will meet with general approval from the whole Planting community and especially coffee planters who will at once recognise that no time has been lost in bringing their grievance to the notice of the Chief of the Government of India, who we are convinced will right the undoubted grievance, if it lies in his power. But if he cannot do so, or so represent the facts to the Imperial Government, it will not be, we are sure, from want of sympathy, but that the Empire's needs are all supreme. Want of knowledge at home of the methods of coffee planting and its requirements has, we believe, been the cause of this Prohibition, for, as the *Madras Mail* wrote on the 7th "It seems unlikely that any member of the Government would deliberately set out to ruin a British Industry."

The Chairman wired to the Secretary as follows:—

"Advise all interested in coffee what I have already done and that I have been duly representing matters."

We believe that in the face of that telegram the conduct of the matter should be allowed to rest in the strong and capable hands of the Chairman who is kept informed daily by the Secretary of the views, opinions and suggestions, that reach him. Steps are being taken to hold a meeting of coffee planters and agents in Madras.

The Mysore Chamber of Commerce has called a meeting at which Messrs. Browne and Lake will represent Mysore Planters.

Mr. Tipping the Honorary Secretary, Coorg Planters' Association, has addressed the President, Department of Commerce and Industry, Delhi, and the Hon'ble the Resident of Mysore and Chief Commissioner of Coorg.

It has been thought advisable to give a sufficient account of what has been done up to date, so that all coffee planters should know what is being done, and to allay as far as possible, their anxiety as to what steps are being taken to bring their serious situation to the notice of the highest authorities.

EDITOR.

Since writing the above the Viceroy wired to the Chairman "Your telegram first coffee. Regret that nothing can be done." This, though not unexpected, must not cause those interested in coffee to refrain from their strenuous efforts to get the prohibition order temporarily withdrawn, and to provide for the future.

SCIENTIFIC ASSISTANCE

Its Importance on the Plantation.

By PROFESSOR J. BRETLAND FARMER, F. R. S.

The history of the great plantation industries in the tropics emphasizes in a most striking way the value of co-operation between science and practice. Agriculture at home has suffered from individualism and an attitude of aloofness towards the theory which ought to lie consciously behind intelligent practice, and in this respect it still compares unfavourably with much of tropical agriculture. The reason is not, perhaps, very far to seek. A considerable measure of success generally accrues from the cultivation of suitable soil, and farming has made considerable progress on purely empirical lines, aided by the accumulated experience of many generations. But the old order is changing. Intensive cultivation, while it has greatly increased the yield, is attended by many additional risks from disease and other disturbing natural agencies, as well as from economic and social conditions that affect distribution and prices.

RISKS OF TROPICAL AGRICULTURE.

In tropical agriculture the risks are still greater, especially where, as in rubber estates, considerable areas are planted up with a single species, intended to occupy the same land for many years. Although the profits may be large, so long as the demand continues to exceed the supply, they are entirely dependent on the health and productivity of the plantations.

The special dangers incident to any agricultural industry which, like that of rubber, is carried on under almost perpetually moist tropical surroundings demand the intelligent attention of those who are responsible for the success of those vast undertakings, in which very large amounts of capital are invested. All the conditions that tend to encourage the development and spread of epidemic disease are present to an extent of which those whose experience is limited to crops grown in the temperate climates can form but the smallest conception. The fate that overtook coffee planting, and subsequently, on a smaller scale, the cinchona enterprise in Ceylon affords an illustration that should never be forgotten.

With the rapid growth of our knowledge of the essential conditions of plant sanitation and plant physiology, a *débâcle* such as that which befell the coffee industry some 40 years ago ought now to be impossible. But the natural conditions for mischief are always present, and unless the earliest symptoms of evil are continually watched for, and their causes traced by men specially qualified by scientific aptitude and training for the task, it can only be a question of time for disaster to recur.

GOVERNMENT AND PRIVATE ACTION.

Much has already been accomplished through the agricultural and similar institutes set up under the *ægis* of the Government of India and the Colonial Office, while the invaluable services repeatedly rendered by the authorities at Kew are widely and deservedly recognized. But Government and official aid is not enough. The industries must also continue to help themselves. Fortunately, the rubber cultivation is largely in the hands of men who are fully alive to the needs of the situation. The rubber Growers' Association have freely utilized the services of trained scientific men in coping with the inevitable attacks of fungal and other diseases, and

in inventing, the best methods of treating the latex. The universities, and especially the Imperial College of Science and Technology in London, have supplied many such workers whose investigations on the spot are showing the way to overcome the worst pests with which the planter up to the present time has had to contend. But it is not sound theory, nor would it be wise practice, to assume because the diseases at present known are now largely under control, that economies in scientific assistance can safely be effected. New parasites and new sources of damage are quite certain to turn up. Other troubles, particularly those which may be termed "constitutional"—i.e., those deep-seated in the trees themselves—are never likely to be absent, especially when the climate or the soil in a given locality happens to be not altogether favourable. Nor must it be forgotten that the very act of tapping the trees opens the door very widely to possibilities of injury. Some of the problems, both chemical and biological, are recondite in their nature and demand for their solution the highest possible skill of the best investigators. The cost incurred is quite insignificant when compared with the magnitude of the interests that are at stake.

NEED OF CONSTANT PRECAUTION.

There are no grounds, however, for alarm for the future of the plantations, so far as can be at present foreseen, provided that organized precautions continue to be taken and vigilance is maintained. On the other hand, it is as certain as anything can be that any general slackening in the utilization of the kind of help that only men trained in modern botany and chemistry are in a position to give will be to court financial loss on a very large scale. Errors of judgment are apt to be severely dealt with in the court of Nature, who is an implacable, but not an unjust, judge. It is for these reasons that it seems but common prudence to maintain on the plantations scientific officers whose business it is to study the trees and their surroundings on the spot, as well as, and in addition to, a staff of experts in the more centralized agricultural institutes.

But whilst the plant pathologist and physiologist, together with the entomologist, are able to render yeoman service in checking the onset of pests and in unravelling the conditions that increase or diminish predisposition to disease, there are other directions in which the plantation industries can, with much profit to themselves, have recourse to scientific assistance and research. For example, the extraction of the caoutchouc itself and its preparation in respect of quantity and quality still hold much that is debatable, and the services of the chemist are needed in these as well as in other operations on the plantation.

PROBLEM OF RUBBER PRODUCTION.

There is, however, a big fundamental problem which lies at the root of the whole matter of rubber production. As yet it remains practically untouched, although its successful solution would assuredly enlarge our control over the factors (still for the most part unknown) which make for quantity and quality of yield. *We do not know how or why the plant produces the rubber at all.* In other words, we are ignorant of the chemical and physiological processes which are involved in the stages that intervene between the utilization by the plant of its carbohydrate and other food substances and the ultimate formation of the commercially valuable caoutchouc in the latex. We do not even know what the significance of the occurrence of the latex in the plant's own economy really is, whether it may be connected with special respiratory activities, or whether its forma-

tion is associated with still more hidden processes of the vital chemistry of the living organism. It may well be that the time is not yet ripe for a full discovery of these secrets, but it is quite certain that the attempt ought to be made; and, even if the complete explanation were to be long delayed, the knowledge gained as a by-product of the main research would well repay the cost of its acquirement.

EXPERIMENTS IN PLANT BREEDING.

A more proximate series of scientific investigations which will with certainty lead to results of great value, if properly carried out, consist in organized and well-planned experiments in breeding. The existence of the well-known differences in yield afforded by individual trees in a plantation is sufficient in itself to indicate the importance of such work. But experience has shown that breeding for the more intense development of a single character, and still more (as in the present instance) of a group of characters, is apt to prove a complex business. It is also likely to extend over a considerable period of time. Furthermore, it is not a haphazard affair, nor is it one that can wisely be entrusted to untrained or unskilled hands. Many preliminary problems are likely to block the way of satisfactory progress until they have been solved. This question of improving the stock by breeding is really important; especially as yield per acre may come to be a weighty factor in deciding the fate of plantation *versus* synthetic rubber.

The rubber-using industries and the general public (apart from shareholders in the plantations) are of course indifferent as to the source whence the raw rubber is derived. Quality and, especially perhaps, price become the dominant factors. It is essential therefore that the planter should realize that the security of his whole industry depends on making the best and fullest use of his machines—*i.e.*, the rubber trees, which driven by the sun's light, are able to construct the latex from the simple substance present in the air and the soil. The ultimate raw materials are available in inexhaustible quantities; it is the planter's business to see that he gets the maximum of work and the largest possible output from his trees.

SYNTHETIC RUBBER DANGERS.

It is of course conceivable that the spectre of synthetic rubber may come to loom larger in the future than it does to-day in the minds of those who are aware of the limitations which the supply of available raw material for artificial synthesis imposes for the present. But it hardly seems likely that the chemically made article will prove a very serious competitor so long as the possibilities of natural production are realized and acted on. A comparison is sometimes instituted between the future of rubber and the recent position of indigo since the discovery of commercially practicable methods for its artificial preparation. But the comparison is not a very sound one, and the rubber grower has as yet at any rate little to fear from prophecies based on the analogy of indigo.

IMPORTANCE OF SKILLED INVESTIGATORS.

Considerations of space preclude the further multiplication of examples illustrating the directions in which the rubber planter may profitably utilize the resources of science. But a word is perhaps permissible in order to emphasize the need for ensuring that the scientific investigators and advisers are really able men. If one requires scientific help at all it ought to be first rate, if not it is apt to be rather worse than useless. Now just as not every administrator or manager turns out a success, so not every one

who is labelled a scientific expert really deserves the title. The man who is likely to be of the greatest value is not the narrow specialist, but one whose special knowledge is founded on a broad scientific training. His outlook is larger and he brings a wider range of knowledge to bear on the new problems that confront him. It should not be necessary to urge anyone who is on the look-out for men to conduct scientific work that he ought to look well into credentials, just as he would in the case of any other responsible officers. This, however, is not always done, and then science is too often expected to shoulder the blame that properly belongs to the employer of an incompetent person.

VALUE OF BIOLOGICAL STUDIES.

The great branches of tropical agriculture, with their diverse objects and interests, naturally tend to specialize and to segregate from each other. But the larger classes of problems touched on above—disease, increasing yield, and generally of gaining control of the plant's machinery—must ever remain common to them all. Now it is just in the same group of problems that the biological sciences are also peculiarly interested, and it is already clear that the planter has much to gain from a co-operation with scientific research. The co-operation is bound to become more valuable as time goes on and progress is made, but it is worth while to inquire whether the best use is now being made of the resources which actually exist, or whether by better organization scientific assistance could be made to yield better results.

We find a somewhat considerable body of workers dealing with pathological and other problems of economic importance to the tropical industries, but these different groups, or even individuals, are at present comparatively isolated from each other, even though they may be working at identical problems.

GROUPING OF SCIENTIFIC ADVISERS.

There are, broadly speaking, three classes of scientific officers: first, those in the Departments or Institute of Agriculture maintained more or less definitely by the respective Governments; secondly, officers engaged by various planters' associations and similar bodies; and lastly, individual scientific advisers employed on single estates or perhaps on a small group of plantations which share the services of such an officer in common.

Bulletins are of course published by the various Government institutes and by some of the larger associations. They are available for circulation and are often of great value. But some more complete organization for the dissemination of the results of new investigations in such a progressing economic science like plant pathology is badly wanted. A central institute in London, similar perhaps in general character to the Imperial Bureau of Entomology, which was established a few years ago under the auspices of the Colonial Office, might help to serve the purpose so far as plant pathology—the chief desideratum at the present time—is concerned.

The business of such a Bureau would be to collect and collate from all sources the kind of information likely to be useful to men working in the comparative isolation of the tropics. There would perhaps be difficulties in administration and in finding the right men for the work, but the difficulties should not be insuperable, at least when the end of the war releases the men who are not now available for such work. At any rate there can be no doubt that such a Bureau, if managed by the right people with a competent staff, would repay its cost in promoting scientific efficiency on the plantations many times over.

FEDERATION OF RUBBER PLANTERS.

A broader outlook on the future of these great industries suggests certain advantages that might accrue from some process of federation on the part of the leaders in tropical agriculture. There is so much that is fundamentally common to all its varied ramifications that immense possibilities would seem to be inherent in higher organization. Agriculture, in so far as it is concerned with the exploitation of the resources and forces of nature, consists in a more or less conscious application in practice of the sort of knowledge which we might properly designate as applied biological science. Probably most agriculturists would be as much surprised, and perhaps justly so, to learn they had been unconsciously practising applied biology as was M. Jourdain when he found he had been taking prose for 40 years without knowing it.

MORE CO-OPERATION NEEDED.

But the fact is that the old barriers between theory and practice are everywhere breaking down—much to the advantage of practice. The ablest of the planters are already keenly alive to the use of a close co-operation of science and practice, and any centralized organization, such as that just hinted at, would certainly do much to cement the union unless it woefully missed its opportunities. The great scientific professions of engineering, mining, metallurgy, &c., have achieved great things by means of their powerful institutes. Is it too much to expect that an institute, or a number of more or less closely federated institutes, of biological industries, representing and including the more progressive branches, would also do the like for tropical agriculture? Something of the kind already exists, though on a relatively small scale, in bodies like the Rubber Growers' Association. But it is evident that the more influential and comprehensive the federation, the larger would be its power and the more it would become a force to be reckoned with in pushing forward the interests represented—interests which, in their larger aspects at least, are identical with those of the Empire itself.

AIMS AND SCOPE OF THE FEDERATION.

How far it may be at present possible to effect such a federation, how extensive its scope, and even by what name it should be known, are matters that obviously lie outside the range of this article to discuss, and are in the hands of the leaders of the industries themselves. But whether on a large or on a more modest scale, the linkage of industrial exploitation of Nature with scientific research is a matter that cannot be allowed to rest.

Is the rubber plantation industry, with a planted acreage of about a million and a quarter and a revenue estimated at somewhere near 50 million pounds sterling for the present year, doing anything like what mere common sense should indicate as no less than its plain interest in this important direction? Better facilities for the full utilization of the ever-growing resources of science, and on a much larger scale than at present, certainly ought to be devised, having regard to the extent and potential wealth of our tropical possessions.

It is on the systematic tracing back of effects to their causes that real advances in every scientific industry will ultimately depend, and whether these advances are going to be made by ourselves, or by some other competitor for the world's wealth, will be largely determined by the use—or the neglect—of available knowledge. It is unnecessary further to labour the

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 12.]

MARCH 24, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director, Planting Districts, returned to Bangalore on Thursday, 22nd instant for a week.

We publish the Proceedings of a Special General Meeting of the Shevaroy Planters' Association at which Mr. Lechler addressed it on the subject for which it was specially called, the Prohibition of import of Coffee into the United Kingdom, which Mr. C. Dickins read at the U. P. A. Meeting held in Madras with the same object. Though the Madras Meeting was not crowded, it was representative of the Coffee Planting Districts and Curing and Coast Firms who were ably represented by Mr. D. Annan of Messrs. Binny & Co. Mr. Lake, who occupied the Chair gave an account of what had taken place up to the date of the meeting, thus taking into his confidence all coffee planters, who now know as much as any one else of what steps have been taken to remove this ill-considered and pernicious order. We are glad to add the latest news in the shape of Mr. Mockett's telegram to the Secretary.

It will be noticed that the Pest Act in Mysore has advanced a stage.

The legitimate lament of "Planter" in our Correspondence pages will find a ready echo and sympathy in the breasts of all planters.

The Manager, National Bank of India, Ltd., writes us as follows :—

"I have the pleasure to inform you that I have this day received advice by wire from my Head Office in London that the net profits of the Bank for the year ended 31st December last including the sum brought forward amount to £400,600.

"The Directors propose to pay a dividend for the second half year of the rate of 16% per annum, applying about 64,000 to writing down investments including War Loan to current prices, placing £60,000 to Reserve Fund. £10,000 to House Property account and £10,000 to Pension Fund and carrying forward £106,000."

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	58,897	0	2
Munnar Supply Association, Ltd.	...	...	50	0	0
Mr. A. Yates	...	...	40	0	0
Mr. H. Waddington	...	...	30	0	0
Total	...	...	59,017	0	2

DISTRICT PLANTERS' ASSOCIATIONS.**Shevaroy Planters' Association.**

Proceedings of a Special General Meeting held at the Victoria Rooms, Yercaud, on 16th March, 1917.

PRESENT.—Rev. Father Capelle, Messrs. E. Travers-Drapes, V. Travers-Drapes, R. W. B. Gompertz, R. A. Gilby, S. M. Hight, C. L. Hight, A. B. Kundaswamy, J. C. Large, C. G. Lechler, E. L. Poyser, W. Rahm, C. Rahm, and L. E. T. Short, V. S. Wooduvis and Charles Dickins (Hony. Secretary). *Visitors:* Messrs. N. Hight and Santha Pillai (Town Inspector of Police).

(1) The Notice calling the meeting was taken as read.

(2) **PROHIBITION OF IMPORT OF COFFEE INTO U. K.**—Read letter dated 1st March 1917 from Messrs. Peirce, Leslie and Co. Read wire dated 5th March 1917 from the Hon'ble Mr. Barber. Read letter dated 5th March 1917 from the Hon'ble Mr. Barber. Read copy of letter from the Hon'ble Mr. Barber addressed to the Chairman of the U. P. A. S. I.

(A) With reference to the Prohibition of Import of Coffee Mr. C. G. Lechler addressed the meeting as follows:—

1. The Members of the Shevaroy Planters' Association in meeting held the 16th day of March 1917, in bringing to the notice of the Government of Madras, the following difficulties under which they labour now, and will suffer from for some years to come, would desire to state emphatically that it is their earnest wish not to hamper, but to assist in all matters affecting the War, and they loyally abide by the Order prohibiting the importation of Coffee into the United Kingdom.

2. But we would nevertheless request permission to bring the following facts to the notice of Government.

3. This prohibition has been enforced at a very critical time, for planters have just harvested their crops, following a period of 2 bad seasons of small returns, though working expenses were obliged to be incurred as usual.

4. Nearly the whole body of planters in this district are owners, many of them elderly men, beyond "Service" age—there being only one Company in existence—this stoppage therefore is very serious and will mean ruin or grave disaster to a good number, not only for this, but several succeeding years; for most owners have no capital to draw upon, but work year by year on advances made by Agents on hypothecation of crop.

5. Crop having been harvested all labourers leave Estates to return to their villages, taking with them advances, given by the planters, for work to be performed the following season, the money thus advanced being raised by sale of coffee, which on account of the prohibition is now impossible.

6. If coolies are not advanced now, the effect will be disastrous to the industry—which has always been self-supporting and of agricultural value to the country for it will shake their confidence in their employers; and they will wander about seeking work and advances in other and larger Districts, where there are larger interests and more companies with capital to draw against; this smaller District will consequently suffer at once and for years to come, as labour, always a difficulty, will be disorganised and ruined; as it will be very difficult to induce the labourers to return once they get work elsewhere. This result is the more to be deprecated as it throws the local labour into the hands of touting agents for emigration to other and very distant localities—a subject which is much before the Government and public just at present.

7. The stoppage of work on plantations will entail hardships on assistants, writers, maistries and thousands of the labouring classes, men, women and children, who have found work on these Hills for many years past. This is a grave consideration, for out here in India, with its immense distances from big towns, want of work is felt acutely and there is no well paid war work to turn to as there is in Europe, for those who may lose their occupations and their entire means of livelihood, by the exigencies of this present crisis.

8. The plantations will suffer from want of regular working, want of yearly supply of fertilisers and entire abandonment in a number of cases.

9. The planter will—till the markets are opened—suffer serious loss from having to store his produce on the Hills, where quality deteriorates more quickly than if stored in the plains, or in Europe.

10. This Association therefore would humbly suggest that the Government will be pleased to come to our assistance, either :

(a) By inducing the Home Government to withdraw the prohibition so far as the South Indian Coffee Industry is concerned, giving preference to the Empire's output and shutting out coffee grown in foreign countries, notably Brazil.

(b) By a valorization scheme to buy the coffee now stored, at a fair valuation and disposing of the same when the War is ended, or

(c) By helping planters, in this their dire necessity, to carry on this industry by advancing funds against next crops.

11. The Shevaroy Planters' Association would again emphasise their desire to help in every way possible, by working under disadvantages never before experienced in this industry, and self-denial, and it trusts the Government will be pleased to extend the assistance asked for, at a time when help is so urgently needed and necessary.

12. It may be mentioned, to show that our planting community has not held back at this time of stress and trouble, but has subscribed, as far as it was able, to War Funds and given time and thought to help forward the Nation's needs, and above all has willingly sent its greatest asset, *viz.*, its younger generation, for several young men—sons of our planters—have volunteered from this District and are at the Front serving their Country, and some have already made "the Great Sacrifice."

Proposed by Mr. Travers-Drapes, seconded by Mr. R. A. Gilby and carried unanimously:—

"That Mr. C. G. Lechler's speech upon the Prohibition of the Import of Coffee into the U. K. fully expressed the feeling of the Association upon the subject and that it be published in the *'Planters' Chronicle'*."

(B) 'With reference to Local Markets: Proposed by Mr. E. L. Poyser, seconded by Mr. C. L. Hight and carried unanimously:—

"That the total tonnage of South Indian grown coffee annually shipped to the U. K. is almost negligible as regards shipping, the prohibition will have a most disastrous effect on the local S. Indian market as competition will be thereby eliminated."

(C) With reference to the meeting to be held at Madras. Proposed by Mr. J. C. Large, seconded by Mr. S. M. Hight and carried unanimously:—

"That the Honorary Secretary be elected to represent this Association at the coming Meeting of the U. P. A. S. I. at Madras and place Mr. C. G. Lechler's speech together with the Resolution of this Association on the subject of the Prohibition of the Import of Coffee into the U. K. before the meeting with a request that our views be respectfully submitted to the Government of India through the proper channels."

(3) INADEQUATE FINES UNDER MADRAS ACT 8 OF 1878 SECTION 6.—Read letter dated 8th March from Mr. A. B. Kundaswamy drawing the attention of the Association to the inadequate fines imposed by the Sub-Magistrate on offenders under the above Act, which is discouraging to the Police.

Proposed by Mr. C. G. Lechler, seconded by Mr. E. Travers-Drapes and carried unanimously:—"That the Honorary Secretary be requested to draw the attention of the District Magistrate, Salem, to the fact, that in all cases of conviction under the Coffee Stealing Act brought before the local Sub-Magistrate recently, the punishments inflicted are, in the opinion of this Association, totally inadequate, and the Association desires respectfully to urge that deterrent punishments should be given, not only NOT to discourage the Police who have done such good work, but especially to stop the large number of coffee thefts which are increasing year by year."

(4.) VOTE OF THANKS.—Proposed by Mr. C. G. Lechler, seconded by Mr. J. C. Large and carried unanimously: "That a hearty vote of thanks be accorded to Mr. Santha Pillai (Town Inspector of Police) for attending this meeting and the keen interest he has taken in detecting coffee thefts and other irregularities in connection with the coffee trade, a fact which the Association very greatly appreciates."

With a vote of thanks to the Chair the meeting terminated.

(Signed) CHARLES DICKINS,

Honorary Secretary, S. P. A.

THE PEST ACT IN MYSORE.

It was announced in a previous issue of the *Chronicle* (Vol. XI. p. 634) that a Bill for the Prevention of Plant Diseases had been introduced before the Mysore Legislative Council. Another stage was reached with this Bill on 20th March when it was moved to be read in Council by Sirdar M. Kantaraj Urs, the First Councillor.

We are indebted to the *Madras Mail* for the following account of the speech made by the First Councillor on this occasion:—

"The necessity for the Bill and its scope and object were explained at the last meeting. The danger from pests to our agriculture and gardening is becoming very serious and I need not dwell at length on the damage caused by the *koleroga* in the arecanut gardens or by green bug on coffee estates. If stringent precautions are not taken immediately to arrest their spread, or to root out the pest completely, the danger may prove incalculable. But the chief difficulty felt by the authorities in combating those pests is the practical impossibility to get all the ryots to co-operate. To ensure systematic efforts and to achieve steady and permanent results in the prevention of these pests legislation is considered necessary. Under the Bill power is proposed to be taken to eradicate and prevent the spread of plant diseases. Action will be taken in respect of certain crops only or in certain area only as may be found necessary from time to time. I need not assure the Council that the powers vested in the authorities will be used with discrimination and only in cases where such measures are found to be absolutely necessary. The details of the Bill may be discussed in Select Committee, and the motion now before the Council may be approved."

Mr. C. S. Balasundram Iyer seconded the motion and upon a subsequent motion by the same two members the measure which provoked no discussion was formally referred to a Select Committee.

COFFEE.**Prohibition of the Import of Coffee into the United Kingdom.**

A Meeting of the United Planters' Association to protest against the Prohibition of the Import of Coffee into the United Kingdom was held at the Connemara Hotel, Madras, at 10 a. m. on Tuesday the 20th instant.

PRESENT.—Messrs. J. S. Nicolls (Chairman, U.P.A.S.I.), C. Lake (South Mysore), C. Dickins (Shevaroy), S. H. Hight, (Shevaroy), M. H. Hight (Shevaroy), W. St. Clair Johnson (Bababudin), D. Annan (Messrs. Binny & Co.), C. Barton Wright (West Coast), W. A. J. Milner (Central Travancore), and Fletcher Norton, Secretary.

Those Coast Firms interested in coffee curing were, through short-handedness and pressure of business, unable to attend but had asked Mr. Annan to represent them. The late Chairman, Mr. C. H. Browne, of North Mysore, while on his way to the meeting, was unfortunately taken ill and was unable to be present.

Mr. Lake was elected Chairman and read the Notice calling the meeting, after which he read some correspondence in connection with the matter, which included the telegram and letter from the Chairman, U. P. A. to His Excellency the Viceroy which has already appeared in the *Chronicle*. The following letter from the Planting Member of Council was read :—

“ Madras, 15th March 1917.

“ THE HON'BLE MR. J. P. BEDFORD, I.C.S.,

“ Acting Chief Secretary to Government,

“ Madras.

“ My dear Bedford,

“ I have been asked to approach Government on the matter of the prohibition of the import of coffee into the United Kingdom and to put before them the precarious position of the Coffee Planter.

“ I will put the points as briefly as I can. Those who are affected by the prohibition are affected seriously, and the Government, with the information that can be supplied by their own officers, will be in a position to judge if consideration and assistance can be given in the matter.

“ 1. The last steamer by which the shipment of Coffee is permitted is the Clan 'Macintyre' now due on the West Coast and it is estimated that the balance of coffee for shipment after that vessel has cleared will be about 3,500 tons.

“ 2. The Rupee value of this to the planters will be from 30 to 35 lakhs.

" 3. The prohibition does not affect any freight contracts nor, it is probable, any sale contracts.

" 4. Coffee is a seasonal crop and the planters look for the sale of their produce to clear off the past year's working expenses and to provide funds for the coming year's expense.

" 5. The position is serious in regard to labour. It is usual to pay off the coolies at this time of year, but with the restriction of funds it will be impossible for many to meet their wages bill, especially so in the case of those who have been working their estates by hypothecating their crops.

" 6. Even with unrestricted export there is at present great difficulty in arranging for finance and so, with export prohibited, the planters cannot expect his agents or the Banks to finance him on the security of his crops lying in godown, more especially, as I understand, from two firms of West Coast Agents, that the produce so kept through the monsoon deteriorates.

" 7. The export of such quantity that remains on hand for shipment will be little or no tax on tonnage, for, if concentrated, one steamer could deal with it and have room to spare.

" 8. There is more involved than the actual value of the produce. Coffee is permanent cultivation and Coffee, more than most crops suffer from neglect of cultivation, so any set back through the shortage of funds involves a loss in value of the property, that is a loss of capital.

" I have seen Sir Bernard Hunter and he tells me that owing to the demands that are likely to be made on him for the finance of the War Loan, he cannot undertake to finance any considerable quantity of coffee over the monsoon and I believe that the Exchange Banks are in an even less favourable position to afford assistance.

" So far I have put the matter entirely from the view of the European Coffee Planter, but I have seen Messrs. Binny & Co., and they tell me that the prohibition will hit the Indian Coffee Planter in Mysore as well.

" For two seasons the crops have been bad and this makes the position worse, for it was expected that this season's good crops would enable the Planters to get on level terms again.

" I understand that a license to import may be obtained from the Board of Trade and I shall be glad if the Government can see their way to cable to the Secretary of State in order to obtain this.

" Yours sincerely,

" E. F. BARBER."

A letter from Mr. Tipping, Honorary Secretary, Ccorg Planters' Association, which arrived during the meeting was read:

Mr. Dickins read a report from the Shevaroy Planters' Association, which appears in another place, for which he was thanked.

The following Resolution was then put from the Chair and unanimously passed:—

"That this Association, while not wishing in any way to hamper the policy of the Imperial Government at a critical time, feels that the serious difficulties which will arise in the coffee industry in Southern India, if the prohibition of coffee into the United Kingdom is at once enforced, have not been fully realised, and would respectfully beg the Madras Government to urge upon the Imperial Government the desirability of allowing all coffee shipped from Indian Ports prior to the 30th May 1917 to be imported into the United Kingdom."

The Chairman explained all the steps that had been taken prior to this meeting and asked the Secretary to read the telegrams that had passed between Mr. Brooke Mockett and himself—the latter telegram having the sanction of the Chairman of the U. P. A.

"Strongly advise authorise me affiliate it to British Empire Producers Organisation and cable appointing Sir John Rees and self your representatives on their Council who are in position make direct representation to Cabinet regarding Prohibition Coffee imports. Telegraphic address Hopeville London.—Mockett."

"United Planters' Association authorise you to affiliate it to British Empire Producers Organisation and appoint you and Sir John Rees representatives on their Council to make representations to Cabinet for entire withdrawal or suspension of prohibition order till May thirtieth. Matter most urgent. Secretary, United Planters' Association, Southern India."

Mr. Lake proposed a hearty vote of thanks to Mr. Nicolls, Chairman, U. P. A. and the Planting Member for all they had done on behalf of the Coffee Planting Community whose grievance they had taken up so immediately at great trouble and inconvenience, which would be cordially recognized by them when the steps taken to get the prohibition order removed or delayed until the present year's crop was shipped were more widely known. He might also tell the meeting that the Coorg Planters were in communication with their own Chief Commissioner and with the President, Chamber of Commerce and Industry, while the Mysore planters, through the Mysore Chamber of Commerce, had asked the Mysore Government to approach, through the Resident of Mysore, who is also Chief Commissioner of Coorg, the Imperial Government urging it to withdraw or suspend the prohibition Order. The Mysore Chamber of Commerce also had wired to Mr. Mockett asking him to interview the British Imperial Council, to which it is affiliated.

Members of the United Planters' Association and especially coffee planters would see that no time and no effort had been lost in bringing to the notice of the authorities the dire effects of the prohibition order. This account he thought necessary to show planters what had been done up to date. He moved the resolution cordially thanking the Chairman, U. P. A. and the Planting Member for all they had done, which was passed unanimously.

A vote of thanks to the Manager of the Hotel, for the use of the Room for the meeting was passed.

With a vote of thanks to the Chair the meeting closed.

Just as we were going to press we received the following telegram from Mr. Mockett: "Wire received everything possible being done."

DEPARTMENT OF AGRICULTURE, MADRAS.**Guinea Grass.**

This is a stout strong growing grass which in certain conditions is capable of producing, under irrigation, heavy crops of fodder of good quality and specially suitable for cows in milk.

Soil.—It likes a deep fertile soil. If the land is poor, it must be heavily manured, as the grass is a gross feeder. Night-soil or poudrette are particularly suitable while horse dung or ordinary cattle manure are also good, or the drainage from a cow shed.

Planting.—The field where the grass is to be planted should be well levelled and made to slope in a uniform manner. It should then be marked out in lines, if necessary with pieces of string, which may be either two or three feet apart, preferably the former and furrows dug between these lines to permit of irrigation. The loose earth from these furrows should be put on the intervening ridges. The slips, or little pieces of grass, should then be pushed in at regular intervals along the top of each ridge, again either two or three feet apart. It is worth while taking the trouble to do this properly as the field is to remain under the grass for some time. The number of slips required for an acre will be 4,840 if the plants are planted three feet each way and 10,890 if at two feet each way. Slips may also profitably be planted along the sides and banks of water channels, as the grass grows fairly well under shade.

Slips.—These are portions of the plant, which spring from the clump and which can be used for propagation as they will sprout if planted suitably. They may be obtained from any old plantation of this grass, and this method is far preferable to sowing seeds, which is never practised. Slips can be obtained from the nearest Deputy Director, at two annas a hundred, exclusive of packing and freight. The cost of slips for an acre will thus be from Rs. 7 to Rs. 15 allowing a small margin for failures which will have to be planted up again.

After-cultivation.—One weeding will probably be needed, after which the plants will become thoroughly established. When the plants have grown a bit, it is a good thing to run a plough or a Planet Junior Hoe* along the lines to loosen and clear out the furrows, so that the water may soak in properly. Manure should be given at intervals, the more the better. Cuttings will be made as indicated by the growth of the plant, and should average about eight in twelve months.

After two years or so the clumps will become too big and may be divided. A simple way is to cut the clump into four, by two good cuts with a mammutti at right angles, and to remove three pieces, leaving the fourth to sprout afresh. Occasionally the whole field may want replanting.

* Messrs. Oakes & Co., price Rs. 45 each (complete with spares). See Leaflet No. VII of 1915.

CORRESPONDENCE.

18-3-17.

THE EDITOR,

Planters' Chronicle.

Bangalore.

Sir,—Having been blessed by a good crop this season, and being free of debt, I looked to invest, patriotically, a tidy sum from proceeds of sale—after keeping back sufficient for coming season's working expenses—in the War Loan. But comes an order from the Government prohibiting the importation of any produce into the British Isles, and in consequence it becomes unsaleable, so that, instead of helping forward the War in the only way I could being too old to be of service in any other way—I have, perforce, to resort to a loan myself to keep the source of my living going, and am mocked by exhortations, headlines, and posters such as I read to-day in my paper "Have you bought your War Loan? Germany is watching." "Have you been to your Banker, your Broker, your Post Office?" How can I!!

Louis Raemaeker could draw a very good cartoon of a planter bound hand and foot lying on a bag of coffee labelled "Unsaleable owing to prohibited importation," and Lord Devonport sternly pointing at him saying: "Look at this unpatriotic fellow lying there comfortably, doing nothing for his country! Not even buying a War Loan!!"

Yours faithfully,

PLANTER.

C. 77

Office of the Deputy Director of Agriculture,

Planting Districts,

Bangalore.

22nd March, 1917.

Sir,—May I be permitted to call attention to the Chairman's address to the Annual Meeting of the South Travancore Planters' Association to be found in the Report of the Proceedings of that Meeting published on p.100 of Vol. XII of the *Chronicle*, and to commend the excellent practice therein adopted of giving an official statement of acreages and crops for the District to Chairmen of other Planters' Associations?

These figures are of the greatest interest to the Officers of the Scientific Department and, I venture to think, to planters in other Districts. They are not always easy to obtain or to find when wanted. The Chairman's address at the Annual Meeting of the various Planters' Associations appears to be an excellent opportunity of publishing such statements, and were this done each year in each Planters' Association one would always know where to find the information when it was wanted.

Yours faithfully,

RUDOLPH D. ANSTEAD.

Deputy Director of Agriculture, Planting Districts.

THE EDITOR,

Planters' Chronicle.

THE PLANTERS' CHRONICLE.

No. 50.

No. 9, South Parade,
Bangalore, 22nd March 1917.

THE EDITOR,
Planters' Chronicle,
Bangalore.

Chilean Nitrate Propaganda (Sub-Delegation).

Dear Sir,—An Office has been established in Bangalore at the above address by the Chilean Nitrate Committee for the purpose of introducing modern methods in agriculture suitable to this country, and supplementing the country manures with Nitrate of Soda.

We are prepared to supply gratis, enough Nitrate of Soda, to any Planters, who would like to carry out small experiments on their estates.

I would be glad if you will give me your expert opinion, as to whether this idea would be feasible and if any Planter of whose estates you are their Scientific Adviser, would care to experiment with this Fertiliser and give it a fair trial.

I beg to remain,
dear Sir,

Yours faithfully,

THE CHILEAN NITRATE PROPAGANDA
(SUB-DELEGATION.)

(Signed) H. C. STAPLES,

Manager,

M. S. E. Lond.

No. 325/1917.

Office of Deputy Director of Agriculture,
Planting Districts, Bangalore,
23rd March, 1917.

Nitrate of Soda.

Sir.—I have received the enclosed letter from the Chilean Nitrate Propaganda, Sub-Delegation, which has been established in Bangalore.

Nitrate of Soda is often used in mixtures for Tea manuring. In the case of Coffee it should be worth a trial. It will however be necessary to apply it at a time when only light rains are expected.

If any planters wish to make a trial of this fertiliser and take advantage of the offer made by the Chilean Nitrate Propaganda I should be glad if they would communicate with me, or direct with Mr. Staples who will I am sure, be glad to give them any information or help in his power.

Yours faithfully,

RUDOLPH D. ANSTEAD.

Deputy Director of Agriculture, Planting Districts.

THE EDITOR,
The Planters' Chronicle.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.
(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 13.]

MARCH 31, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Secretary is attending the Committee Meeting of the Local Branch of the Rubber Growers' Association on Saturday the 31st instant and returns on Monday the 2nd April. As he leaves on Thursday the 29th to be in time, the slight unavoidable delay in answering correspondence will be allowed for.

The article on Markets, Prices and Statistics appears in this week's issue.

We publish the Secretary of State's reply on Indian Emigration to the Government of India, the whole of which will be read with interest, by the employers of labour in Southern India especially. It will be noted that he says "That the mere abolition of indentured emigration will not be sufficient, and that the change should not be made until a satisfactory scheme of recruitment on other lines has been worked out." We are indebted to the *Indian Planters' Gazette* for the extract. We call attention to the tribute paid to the Colonial administrations.

From *Intensive Farming in India* we publish an extract—which we hope to continue—on a Few Hints on Manuring Tea.

Our correspondence pages contain a letter addressed to us by Messrs. Rowe, White & Co., Ltd., which we have much pleasure in publishing in the hope that it may be of use to Companies and Proprietors who need assistants.

Also a letter from Mr. Leslie Powell calling attention to the want of cigarettes in East Africa.

We publish the letter from Mr. P. G. Tipping, referred to in our last issue as having been read at the meeting in Madras. It should have appeared last week but we had not got it by us at the time.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	59,017	0	2
Messrs. Barber & Pascoe	...	...	75	0	0
Mr. A. S. Dandison	...	...	50	0	0
Total	...	...	59,142	0	2

MARKETS, PRICES, AND STATISTICS.

Coffee.

Monthly Statistics to 31st January.

		1917.	1916.
		Tons.	Tons.
<i>East India—</i>			
Landed to 31st January	... ..	225	1
Delivered to 31st January	... ..	295	302
Stock on 31st January	... ..	472	1,027

Coffee of all kinds—

Stock in U. K. on 31st January	...	37,500	32,150
Total European Imports to 31st January	...	19,355	32,000
Total European Deliveries	„ „	22,060	32,060
Total European Stock on	„ „	222,760	206,410
World's Visible Supply on	„ „	623,705*	587,645

*A reduction of 37,430 tons against a reduction of 10,940 tons last year.

Brazil receipts:—

	1917.	1916.	1915.	1914.
To 3rd February	... 10,054,000	12,222,000	9,053,000	11,465,000
To 12th February	... 10,220,000	12,503,000	9,483,000	11,680,000

Offerings at auction have been:—

	1—6 Feb.	8—13 Feb.	Since 1st Jan.	Last Year.
East India	...	—	40*	572*
Costa Rica	...	1,168	2,778	6,074
Other Milds	...	1,449	3,488	8,652
Brazil	...	6,442	7,614	28,214
Robusta	...	367	—	501
B. E. A.	...	—	202	242
Uganda	...	—	262	323

*Old Coffee.

Messrs. T. H. Allan & Co., in their Reports for the weeks ending 6th February and 13th February say that the auctions have again been marked by keen competition and advancing prices, quotations showing a further advance of 3/- or 4/- for the week ending 6th February. While the present restriction of supplies continues we are more likely to see a further rise than any material decline, although there will no doubt be occasional fluctuations when profits are being taken.

Larger supplies were offered on 13th February which had the effect of making the buyers rather shy and the greater part of the coffee remained unsold, bids being much below the previous level. It must, however, be noted that the bulk of this coffee was either unsuitable for the home trade or rather undesirable in quality, anything really satisfactory sold as well as ever. Even had all the coffee offered been desirable it would not have been surprising to see a slight check after such a rapid rise, and as far as good qualities are concerned the position really remains unaltered.

The Mysore Chamber of Commerce Weekly Report dated 19th March quotes the following prices per maund of 26½ lbs. Peaberry from Rs. 13/8 to Rs. 13/12. Parchment, Rs. 9/8. Native, Rs. 6/12 to Rs. 7/12. Chickmaglur quotes per maund of 28 lbs., Peaberry Rs. 12/8 to Rs. 13. Native, Rs. 8/12 to Rs. 9.

Tea.

According to Messrs. T. H. Allan & Co.'s report the demand continues active and prices continue to advance.

The following prices have been obtained for South Indian Tea at the auctions of 12th and 14th February.

	B.O.P.	O. P.	B. P.	Pek.	P. S.	B.P.F.	B. T.
TRAVANCORE.							
Surianalle ...	1/5	1/4	1/4½	1/4½	...	1/4	...
Munaar ...	...	...	1/5	...	...	...	...
Periavurrai ...	...	...	1/4¾	...	...	1/4¼	...
Kalaar ...	...	...	1/3¾	...	...	...	...
Periakanal ...	...	...	1/4	...	...	...	...
Letchmi ...	...	...	1/4¼	...	1/3½	1/4	...
Stagbrook ...	...	...	...	1/3¾	1/3	...	...
Granby ...	1/4¾	...	1/3¾	1/3¼	1/3	...	...
Mount ...	1/4	1/3¼	1/3¾	1/3¼	1/3	...	...
Bonaccord ...	1/4½	...	1/4	1/3¼	...	...	1/1¾

Rubber.

The following quantities of Rubber were imported into the United Kingdom during the month of January measured in centals of 100 lbs.

	1917.	1916.
From Dutch East Indies ...	17,358	5,730
From French West Africa ...	314	1,380
From Gold Coast ...	14	783
From Other Countries in Africa ...	11,289	5,269
From Peru ...	1,284	2,815
From Brazil ...	20,285	17,926
From British India ...	4,854	5,278
From Straits Settlements ...	30,758	50,615
From Federated Malay States ...	65,626	31,346
From Ceylon ...	22,958	24,414
From Other Countries ...	3,887	2,242
Total Imports ...	178,627	147,798

The following quantities were re-exported during January measured in centals of 100 lbs.:—

To Russia ...	3,238	5,045
To France ...	28,774	15,393
To America ...	79,728	48,732
To Other Countries ...	16,470	16,803
Total re-exports ...	128,210	85,973

In sympathy with a strong rise in New York on political developments prices improved until 3/4¼ was touched on the 12th February, when there was a sharp relapse of 1½d. followed by renewed firmness and a recovery to about 3/4.

R. D. A.

INDIAN EMIGRATION.**Secretary of State's Dispatch.**

It will be remembered that in reply to a question by Pandit Madan Mohan Malaviya, the Government promised to publish the reply of the Secretary of State to their dispatch (already published) on indentured emigration. Accordingly it is published in to-day's issue of the *Gazette of India*, the text being as follows:—

"The recommendation you have made for the abolition of the indenture system is one for which I had not been prepared by perusal of the correspondence that followed the report of the Sanderson Committee. The methods of recruiting adopted in India are admittedly unsatisfactory but I was in hope that they would be found by your Government to be susceptible of improvement.

The growing feeling in India against the system must be accepted as a fact and there would be little profit in discussing how far the popular movement is due to some confusion between the Dominions that exclude free Indian immigrants and Colonies that still import Indian indentured labour. Such confusion is excusable in view of the history of the Indian question in Natal, but it is necessary to remark that the attitude of Canada and Australia towards free Indian immigration is due to deeper causes than the existence of indentured labour in the West Indies and Fiji and will not be affected by the discontinuance of the system.

I am, however, entirely prepared to accept the policy advocated by Your Excellency's Government and will invite the Colonial Office to co-operate with me in devising the most suitable means for giving effect to it with due consideration to the interests of the Colonies affected and with adequate safeguards for protection of, and well being of, immigrants under the new system which you suggest should take the place of indentured labour. The results of this reference will be communicated to you in due course.

I agree with you that the mere abolition of indentured emigration will not be sufficient and that the change should not be made until a satisfactory scheme of recruitment on other lines has been worked out. The Colonies which depend on Indian Labour will desire to attract immigrants, and the problem of securing as far as possible the welfare of labourers who leave India would not be solved by a formal transference of the direct responsibility now vested in Your Excellency's Government. While the restrictions on freedom involved by the indentured system seem to have a direct bearing upon the ratio of suicides, the question of sexual immorality is quite distinct, connected as it is with the disproportion of the sexes and the action of recruiters in collecting women of an undesirable type. The idea that the abolition of indentures would of itself produce amelioration, in this respect is not shared by your Excellency's Government, who are aware that there is no evidence for the vague belief sometimes expressed that the status of indentured women exposes them to ill-treatment. The question of the condition of free emigrants in countries overseas has very rightly aroused to a steadily increasing degree the attention of public men in India and unless free emigration is to be prohibited an idea that would not commend itself to the critics of indentured emigration the problems upon which you have touched will remain and cannot be a matter of indifference. It was after the abolition of indentured emigration to Natal that developments connected to a large extent with the general position of Indians in South Africa and the status of time-expired indentured labourers in Natal gave rise to the recent demonstration of Indian feeling.

The abolition of the penal contract at the place of recruiting gives scope for more than one system of labour. In Assam, for example, I understand that Act 13 agreements are still common. In the Federated Malay States since the abolition of indentured immigration a somewhat different system is in force. I am not at present sure that the scheme outlined in the 17th paragraph of your letter of 15th October is entirely practicable and I shall be glad to learn whether in the opinion of Your Excellency's Government the introduction of arrangements similar to those in force in regard to emigration to the Federated Malay States would satisfy.

Indian public opinion and at the same time provide sufficient safeguards for the welfare of the emigrants.

It is essential to bear in mind the elaborate provisions made by the Colonial Governments under the present system for the protection of indentured labourers and while free immigrants in unfamiliar surroundings will stand in need of similar safeguards the Colonies can hardly be expected to their present arrangements unless they have some security that no obstacles are placed in the way of intending immigrants and that these can be counted upon to fulfil the obligations into which they enter. While it is for the Colonial Governments to devise an acceptable substitute for the present system Your Excellency's Government might facilitate their endeavours by stating your requirements in greater details. I have, etc, (Signed) AUSTEN CHAMBERLAIN."

STATEMENT BY MR. CHAMBERLAIN.

London, 23rd February.

In the House of Commons Mr. Chamberlain stated that he was glad to say that the condition of indentured labourers had been greatly ameliorated by recent changes in Colonial laws. He paid a tribute to the spirit by which Colonial Administrations had met the Imperial Government in the matter.—*Reuter.*—*Indian Planters' Gazette.*

AMERICA.

The attitude taken up by America with regard to the German submarine campaign has had its effect on the raw rubber market. There has been a very active demand during the week not only for spot but for futures, and at the moment the second half of the year can be dealt in at 3s. and over. It is obvious that the American attitude will make it all the more desirable for dealers and manufacturers in the United States to procure ample supplies of crude rubber. Furthermore, should the international situation continue on the present lines, it is conceivable that every facility will be given to meet the demand of America for raw material, of which we have sufficient and to spare.

We have received cable advices from various parts of the Middle East during the week, from which we learn that active bidding is taking place for spot rubber, and that so far the British Colonies are concerned, accumulated stocks will be very soon out of the way. This has, of course, led to quite a jump in the price of rubber, and we take the view that it is likely to go still higher in consequence of the submarine activity alone. We have been particularly fortunate, and we hope we shall continue to be free from heavy losses of raw rubber at sea.—*The India-Rubber Journal.*

TEA.

A Few Hints on Manuring.

The three great growing centres of tea are China, India, and Ceylon. Indian tea goes half as far again as China tea so far as depth of colour and fulness (not delicacy) are concerned, one lb. of China tea producing 5 gallons of tea of a certain depth of colour and fulness of flavour, whilst one lb. of Indian tea will produce $7\frac{1}{2}$ gallons of a similar beverage. China sent in 1865 to the United Kingdom 93% of the tea imported there, whilst India was responsible for 2% and Ceylon sent nothing.

	China.	India.	Ceylon.
In 1875 the figures had changed to	86	13	0
In 1885	66	30	2
In 1895	16	46	32
In 1899	12	50	35

showing that China tea has been pushed out of the United Kingdom in favour of Indian and Ceylon teas. It was in the middle of the seventies that a disease "Hemeleia Vastatrix" wiped coffee out of Ceylon and ravaged the estates on the adjoining continent. The predisposing cause has never been ascertained; but I am inclined to believe, and I have the opinion of old coffee planters on my side, that the burial of pulp at the roots of the plant had a great deal to do with the total destruction of the coffee in Ceylon, and the application of the same in a half rooted condition on Indian estates caused the terrible devastation then experienced, though the evil was not so great, as pitting had been in vogue here, whilst burial in the rows was the practice in Ceylon. My reason will be given when dealing, later on, with the burial of prunings.

As nothing remains on the soil to replace the plant foods taken away in the leaves, there must come a time when tea soils suffer depletion unless manured, and the fertilizing, to produce good results, must be complete, sufficient and well-balanced. To judge from the best authorities in India and Ceylon this period has been reached. The *Indian Planters' Gazette* of April 19, 1901, contains an article on the "Renovation of Tea Estates," by an old Planter, from which the following extracts are taken:—

"The lighter soil in Sylhet and Cachar is exhausted, and though persistence in keeping up estates which yield but meagre returns (that cannot really be considered legitimate profits) may suit the views of certain interested parties, who alone benefit, the hopes of share-holders grow fainter every successive season. The chief need of the tea plant is ammonia, which, by enriching the sap, gives greater strength to the leaf, which, sales show, the Surma Valley teas are deficient in; phosphates develop wood and fruit, corresponding to bone and muscle, but as the ordinary run of our plants are tolerably supplied in this respect when not knotted and gnarled by the now fortunately obsolete system of pruning, the bonemeal vended does not contain a sufficient proportion of ammonia to bring our leaf up to the mark; an undue amount of the alkali would prove detrimental, but 25% is certainly required, so that agents might well put themselves into communication with the local gas works upon the subject.

Mr. Mann's whole attention should be directed to the subject of manure; we do not require analysis of soils, which everyone knows have long since parted with whatever productive properties they may have at the outset possessed. Few, even if they have the land, can afford the expense of extensions, which will return nothing for four years, and a good number, by ill-advised relinquishments, have brought their whole available area

under one plant. The only hope therefore lies in renovation : the alternative we need not dwell upon. Rule of thumb planting must give way to systematic gardening, which ultra-conservative orchard owners have at length realised in England."

At a Meeting of the Indian Tea Association in Calcutta in 1902, Dr. Mann, the scientific expert, said:—

"The Chairman has asked me to say something about the tour recently made by me in the tea districts in the course of which I visited almost every district in Assam. There was nothing which struck me more during that tour than the fact that during the past few years there has been a continual expansion of tea, and really without any effort or very little being made to keep to the production of area already under tea ; in fact one or two gardens which I saw gave figures which seem to show that, with the area doubled, the product of tea was precisely the same as it was before. I cannot help the conviction that the whole of that decreased reduction per acre under tea cannot be explained by any method of finer plucking. What we need is a concentration of attention to the area already under tea. To say the least, it is a bad thing to go on extending the tea area without giving time, attention or money to keeping up the production of the area already under tea. At the present moment it does not seem to be the idea of the Committee or of the tea industry to increase production at all.

The idea is more that we should devote our attention to the improving of the quality, or rather keeping up the quality we have already attained to. There seems to be no doubt that during the past ten years the quality of the tea from a very large number of the Assam tea gardens has deteriorated ; that is more especially the case in those districts which have up to the present been famed for a high quality of tea. I am at present devoting more attention to this point than to any other. My investigations at present are directed to finding what constituents in the soil render it capable of producing high quality tea and what constituents are present in those gardens which are, or have been, famed for the quality of the tea they have produced."

The amount of British capital invested in tea gardens is about £30,000,000. In Ceylon, which in 1833, sent 1,000,000 lbs. of tea to London and increased that to 115,000,000 in 1900, there is no doubt that manuring plays an important rule, but there is danger that in trying to avoid expense, serious harm may be done. Mr. Joseph Fraser, Chairman of the Directors of the Pitakande Tea Company of Ceylon, Limited, and an authority on tea-planting, unfortunately recommends the burying of prunings and, notwithstanding the opposition of many scientists, not only maintains that it does not harm, but attempts to prove that it is beneficial. One of the laws of sanitation in human life is the removal of all *excreta* from the surroundings. Emanations from the body are pleasant when slight, and will explain the love of the old arm chair, old garments, the old house, etc., and why some people cannot sleep well in a new bed. These emanations, when over concentrated, become noxious and poisonous. We shall probably find the same rule as an axiom of plant-life. Nothing else can explain the inability of beet to grow on soils on which it has been raised continually for some years, though the mere burning of the soil renders the land again fit. This alone will explain clover sickness and the apparent mystery of orchards suffering, if over-run with grass, and will probably account for the dying down of whole forests in course of time and these being succeeded by trees of quite a different species. Mr. Joseph Fraser refers to the Pitakande Estate to prove that the burial of prunings is not only harmless but positively beneficial, taking as it does the place of

manuring; but in the *Tropical Agriculturist*, in reply to this statement, I find a letter from Mr. F. L. Clements analysing the experiments carried on for six years on this Estate. His remarks are suggestive, and not in favour of the burying of prunings—in fact he produces the evidence from Pitakande to condemn the custom. He says:—"Unfortunately I have not seen the list of experiments but presume that pruning was carried on in the 2nd, 4th and 6th years. If such be the case, I presume that the burying of prunings took place in the same years and there is nothing more damnatory of burying than the results shown there."

The fall in the average product would certainly not have been so great, if no manure had been used. The burying of prunings appears to me to be the cause and with Mr. Clements I am inclined to ask:—

"Do these figures also indicate a steady deterioration of the tea bush and of the soil" and to add: "Does not the cause lie in the placing at the plant roots the very excreta of the plant itself?" At the risk of being too prolix on the subject, I give the opinion of Mr. John Hughes, Agricultural Analyst, that appeared in the *Tropical Agriculturist*:—

"Judging from notices in the *Ceylon Observer*, it would appear that practical tea planters are becoming doubtful of the general utility of burying tea prunings in trenches under all conditions of soil and weather. At an important meeting at Dimbula, it was stated that prunings which had been buried just previous to a very wet season in the Uva District, had not decomposed at the end of three or four months of very wet weather; but that an injurious fungus was developed to such an extent that one per cent. of the tea bushes had died in consequence. The idea of utilising the leaves and small twigs of tea prunings as a future source of humus to the soil, is no doubt correct in theory, but to be practically useful the conditions of the soil and weather must be favourable.

Green leaves, like green grass or clover buried near the surface in a light porous soil, followed by a period of hot dry weather, will rapidly decay and afford valuable plant-food. But damp green leaves associated with large branches buried over six inches deep in a stiff ferruginous clay soil, saturated with water, are more likely to be a serious source of danger than a source of plant-food to the tea shrub. In the presence of an excess of moisture and a deficiency of air, an acid decomposition of the green leaves is likely to be set up, and the resulting acid compounds will not be conducive to the healthy growth of the rootlets of the shrub. As long since as 1863, the late Dr. Augustus Voelcker, F. R. S., writing in the journal of the *Royal Agricultural Society* on "Manures for root crops," stated that:—"No acid combination, as such, can enter into plants without doing them serious damage; even free vegetable acids such as Ulmic and Humic acid are injurious to all crops cultivated for food for the use of man or beast; and unless these acids, which are always present in what practical men call sour humus, are neutralized by lime or marl or earth, none but the roughest and most innutritious herbage can be grown."

The above was the opinion of one who was rightly regarded as an authority on the properties and application of artificial manures.

The success, which has attended the use of non-acid manures such as Basic Slag and the more rapidly available manure, known as Basic Superphosphate, is largely due to the fact that both these fertilisers have a distinctly alkaline reaction and are specially suitable to soils deficient in lime like those of Ceylon tea estates. The addition of Basic Slag, however, to the buried prunings cannot be done sufficiently to ensure the complete neutralisation of the acid decomposition. Consequently, instead of burying the prunings the safer plan, in the writer's opinion, would be to remove

them, and after stripping off the leaves at some central spot, to stack the branches for future use as fuel and to allow the leaves to decompose in a heap, sprinkled with some soil and a little freshly burned lime. If the object is to convert the leaves into healthy and useful humus, the process of decay will certainly be carried on much more rapidly when the action of the air is allowed to have full effect, rather than when the leaves are buried in trenches, in a stiff clay soil, sodden with excess of accumulated water.

The Pussewala Planters' Association to collect statistics as to the existence, spread and best means to combat pests and blights affecting tea in this District, are, from quite another point of view, opposed to burying of prunings, as they record :—

"The conclusion this Committee has inevitably arrived at with regard to the shot-hole borer is, that it is the most serious pest that has yet been known to attack tea over any extended acreage. The affected area has, undoubtedly, largely and rapidly increased during the last few years, and drastic and systematic measures are absolutely necessary to keep it in any sort of check. Weighing the evidence afforded by responses to their circular this Committee considers that the present inroad of the borer necessitates the destruction of all prunings over affected areas, and would go so far as to recommend legislation to make this compulsory."

Mr. Green, the Government Entomologist, in the course of his address on the subject to the members of the Association, said :—

"From what I have seen of shot-borer (I have known it for over 13 or 14 years) it began in Nawalapitiya district and was noted in one of my first reports. I have not heard of a very large dying out of tea due to it, and I have never got reliable reports of the death of a single tree which should really be put down to shot-borer itself. But at the same time I should like to point out that to keep it in check I consider the destruction of prunings is one of the important points—not the only important point, because I think there are several things which ought to be attended to."

A number of diseases are prevalent on tea plantations and in every case the advice is to cultivate well as a remedy against these diseases.

The appearance of various enemies to plant-life as the tree begins to sicken are put down to causes when they are mere accompaniments, often the most telling signs that the estates want better culture.

Reporting on a tea Eelworm disease in Southern India, Mr. C. A. Barber, Government Botanist, Madras, after stating that it might spell disaster if the pest once got a fair hold of a perennial like tea, marked that "it was frequently the result of carelessness or insufficient cultivation, especially on old garden lands which had been allowed to run to waste."

A well manured, well-cultivated estate can hold its own against all enemies and soon recover if attacked. Mr. Green of Ceylon has impressed this upon planters in the following words :—

"I think there is no doubt that it will necessitate more liberal cultivation than has been the custom in a good many places if tea is going to be kept up to its present standard of bearing. But beyond that I think if you keep the prunings destroyed and prune at fairly frequent intervals and keep the tea in fairly good heart it will be able to fight its own battles. I have frequently found, in vigorous tea, that the tendency of the plant is to deposit fresh wood over the hole made by the borer and you will often find that the entrance hole or exit hole—it is all the same—has been blocked."

—*Intensive Farming in India.*

(To be continued.)

CORRESPONDENCE.

The following letter has been received by us from Messrs. Rowe, White and Co., who had been written to by Mr. J. A. Richardson. We publish the letter with the names and addresses of the Officers mentioned, in case any of our readers are in want of assistants, so that they might correspond direct with them.

Rowe, White & Co., Ltd.,

4, Lloyds Avenue,

London, E. C., February 8th, 1917.

The Secretary,

United Planters' Association of Southern India,

South Parade, Bangalore.

Dear Sir,—Mr. J. A. Richardson of Peermade has doubtless informed you that he has been in communication with ourselves and General Phayre regarding the employment of disabled Officers. In his letter to General Phayre he suggests that a list of the names of officers who have made application to us for billets in the East, should be sent to you, and we now have pleasure in enclosing the names of those who up to the present have written us that they are anxious to obtain billets. You will no doubt communicate with Mr. Richardson on his return from Australia, meanwhile we have written to all these applicants stating that we are in communication with Mr. Richardson in the East.

We are, dear Sir,

Yours faithfully,

(Sd.) D. S. SINCLAIR, *Director*,

Rowe, White & Co., Ltd.

James Leo Duffy Hartland House,

(Late Sec. Lieut., 6th R. D. F.) Strokestown,

co. Roscommon,

Ireland.

Major A. Innes Irons, 19th Battalion,

Middlesex Regiment,

Pioneers, B. E. F.

Andrew Graham, 87, Radnor Street,

(Late 2nd Lieut., 7th R. S. F.) Radnor Park, Clyde Bank,
Glasgow.

F. Arthur Sanson, "Sunnycote" Burrington,

(Late 2nd Lieut.) South Molton Road,
N. Devon.

Geo. Vivian Pie, 24, Jocelyn Road,

(Late 9th N. Staffs Regt.) Richmond,
Surrey.

17th Infantry (The Loyal Regt.)

Force "B"

East Africa.

THE SECRETARY,

U. P. A. S. I.,

Bangalore.

Dear Sir,—Some time ago you very kindly brought to my notice a Fund raised by the Planters of S. India to provide comforts for those of the Planting Community who had joined the Army Reserve, etc.

Here in East Africa at the present time we are awfully hard up for tobacco and cigarettes, in fact we hardly ever see either for months, until some kind friend comes along fresh from India and has a small supply for disposal.

I write to ask if you could manage to send me a few cigarettes. I assure you they would be very acceptable.

If you do send may I suggest that the parcel should be *registered*, as we have had many instances of the contents being stolen, and the registration has a certain amount of effect.

Thanking you in anticipation,

I am,

Yours sincerely,

(Sd.) LESLIE J. POWELL,

I. A. R. O.

The council of the Association of Chambers of Commerce is, we learn from the *Times*, considering draft Bills designed to carry out reforms in our systems of weights and measures and of coinage, and should the council approve of them they will be submitted to the Chambers of Commerce throughout the country. If there proves to be general agreement the association's Bills will be introduced into Parliament. It is probable that a Bill for establishing a decimal coinage will have first attention, the Bill for introducing metric weights and measures not being pressed until the country has grown accustomed to a decimal coinage. It is suggested that the simplest means of making the change would be the adoption of the present florin which is the tenth part of a sovereign, as the unit. The existing farthing would be replaced by a "cent." equal to the hundredth part of a florin, instead of a ninety-sixth part as now. In this connection it is worthy of note that Sir Edward Holden, at the meeting on January 26 of the London City and Midland Bank, of which he is chairman, expressed himself strongly in favour of the adoption by this country of the metric system. One of the hindrances to the extension of our foreign trade, he said, is the fact that we do not present our catalogues in foreign countries so advantageously as do other countries. If we are seeking to extend our trade to those countries where German influence has hitherto predominated we must at once begin to adopt the systems which are most easily comprehended by purchasers. The metric and decimal systems have been adopted by all European countries except Russia, and in that country they were, before the war, fast coming to the front. These systems are also used in South America and Japan. In fact, there are few countries which do not use them at the present time.—*Nature*.

Prohibition of Coffee into the United Kingdom.

F. NORTON, ESQ.

Dear Sir,—I much regret that I am prevented from attending this most important meeting of Coffee Planters, which, I take it, is called to discuss the situation, and to arrange what further steps should be taken to represent our case in influential quarters.

Figures I have received by wire under date of 13th instant, place the E. I. plantation coffee for season at 5,500 tons, of this some 1,200 tons had then been shipped and the balance 4,300 was on hand, in addition to this I have just heard from our Commissioner that there is some 550 tons of Native unsold in Coorg and at Mangalore.

Our chief points are the small amount of tonnage required to shift the balance of this season's coffee, and no more wanted till next December.

That the mere suggestion of the stoppage has killed the local market.

That the stoppage coming as it would at the end of our financial season would bring disaster not only on Planters themselves but also on thousands of their labourers and dependents.

The Banks have already stopped all financing.

That the Coffee Markets are already so restricted in consequence of the war that Planters are already badly hit.

That the Prohibition coming on top of the past two bad seasons would be a knock out blow to planters.

That Shipping from East Coast ports, where the Coffee is cured, ceases at the end of May.

That even if finances could be arranged by Government, Coffee cannot be stored through the Monsoon, without serious damage.

That the Authorities might, failing the grant of tonnage required, see their way to take over the Coffee for the Army.

On the other hand we are advised that no official pronouncement has been made by the Government of India, and that shipments continue to be made under permits from the Indian Customs.

It should not be difficult to exclude all Brazil supplies from U. K. and even France till our small supply was disposed of.

Yours faithfully,

(Sd.) PERCY G. TIPPING,

Honorary Secretary,

Coorg Planters' Association.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.
(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 14.] APRIL 7, 1917. [PRICE AS. 8.

THE U. P. A. S. I. (INCORPORATED.)

Contents.

The Local Committee of the Rubber Growers' Association held a Meeting at Calicut on March 31st at which Mr. Marsden, Senior Scientific Officer, R. G. A., Ceylon, gave an interesting address.

The Deputy Director of Agriculture, Planting Districts, who also attended the Meeting, went on tour with Mr. McRae, Government Mycologist, in the Rubber growing Districts and will not probably return to headquarters until about the middle of May.

We publish the first portion of the Deputy Director's tour in the High Range, where he addressed a special meeting of the Kanan Devan Planters' Association, dealing mostly with the loss of surface soil and the best methods of preventing it.

Our weekly article on Markets, Prices and Statistics appears.

In this issue we conclude from Intensive Farming in India, the article entitled "A Few Hints on Manuring Tea."

We have heard with intense regret of the death of Doctor Hiley, of South Coorg. In him every planter in Coorg has lost a personal friend, whose professional services, of no mean order, were gladly given to all in a manner so gracious as to enhance the value of his advice. He had only lately returned from Mesopotamia. He has left a memory that will linger long in Coorg. Our respectful and sincere sympathy is proffered in the name of all to his bereaved widow.

With reference to the Prohibition of Coffee into the United Kingdom, no information has reached us, but a telegram in the *Madras Mail* of the 3rd instant informs us that on March 28th, the matter was brought up in the House of Commons by Sir John Rees and Mr. Chamberlain explained he was communicating with the Board of Trade on the subject.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	59,142	0	2
Mr. Stephen Bayley	...	...	10	0	0
Mr. J. A. Richardson	...	...	50	0	0
Mr. Campbell Hunt	...	...	30	0	0
Total	...	...	59,232	0	2

TOUR OF THE DEPUTY DIRECTOR OF AGRICULTURE IN THE HIGH RANGE.

Leaving Bangalore on 21st February the Deputy Director of Agriculture, Planting Districts, made a tour of the High Range of Travancore and returned to Head Quarters on 22nd March. Thanks to Mr. H. L. Pinches and Mr. E. A. Hughes, the Honorary Secretary of the Kanan Devan Planters' Association. Mr. Anstead was given facilities of visiting a large number of estates in different parts of this large District and his sincere thanks are due to these gentlemen and other members of the Planters' Association for their hospitality and kindness.

A special meeting of the Kanan Devan Planters' Association was held at the Munnar Club on Saturday 17th March at which Mr. Anstead delivered a lecture covering the various points of local interest which had come under his observation during his tour. This meeting was attended by about 40 members and the following is a full digest of the lecture:—

Mr. Anstead began by saying that when he last had the pleasure of visiting the District in March 1913 he found that a system of clean weeding was adopted and the outstanding problem was to prevent wash which was causing a serious loss of top soil. He then suggested several methods of preventing this and he was gratified to note that considerable progress had been made along the lines suggested.

Undoubtedly the loss of the surface soil from steep slopes is one of the most important problems to be faced in the District. One has only to look at the paths and roads at the bottom of slopes and the soil in the valleys to see that there is a deep layer of fine silt being rapidly deposited on them. Examination of the ridges shows the Tea to be poor on them, with sickly bushes with projecting roots. There is a steady transference of fine top soil down the slopes, with a deposit of silt in the valleys which is changing the texture of the soil there, and a constant heavy loss of fine soil by way of the rivers each monsoon.

This top soil is the most valuable asset of the District, full as it is of bacteria and available plant food and every possible effort should be made to stop it.

During the past five years a growing interest has been taken by Scientists in India in the question of soil conservation generally. This soil is the agricultural capital of the country and the country cannot afford to have this capital wasted. In Java terracing is enforced by law and no land can be acquired for cultivation unless it is terraced before it is planted. In how far such a regulation is necessary or possible in India is open to consideration but there are a number of ways in which the loss of top soil can be regulated and controlled.

The most important of these are:—

(a.) To stop forking steep slopes. The Tea soils of the High Range are very friable and retain a natural tilth and constant forking is quite unnecessary. Steep slopes should never be forked at all and what cultivation is necessary can probably be done by means of trenching.

(b.) Terracing and contour working.

(c.) The use of cover crops. This is probably the best means to hand of controlling loss of soil and it was the method specially advised in 1913. The lecturer noted with great satisfaction that great strides had been made in this direction since his last visit.

The starting point for the introduction of a cover crop was a Clean weeded estate, and though some estates in the District still had trouble with weeds and grass during the monsoon, as a whole the Tea estates were clean and consequently cover crops could be introduced.

Many suitable plants were present in the District. The best plant to use was undoubtedly an indigenous one, leguminous for preference. Indigenous plants were undoubtedly better than introduced ones and it was better to encourage the former which were acclimatised and suited to local conditions than to struggle with imported plants which however good they may be in other countries were apt to be difficult to grow when introduced to new localities, killed by monsoon or frost, and attacked by insects.

Leguminous plants should be chosen if possible since by means of the nodules on their roots and the bacteria working in them they were able to assimilate Nitrogen from the Air which ultimately was available to the Tea, and as everyone was aware Nitrogen was the most important factor for Tea and the most expensive plant food to buy. But any weed was better than none, grass excepted, and if a leguminous cover crop could not be easily established some other should be chosen.

Of Leguminous weeds noticed the following appeared to be the most suitable in the District.

(a.) *Cassia mimosoides*.—One of the best of cover crops where it can be established and one frequently recommended. An excellent cover of this had been established on a field at Chokanad.

(b.) *Parochetus communis*.—This is a clover-like plant with a light blue flower, commonly called, but erroneously so, *Desmodium triflorum*.

It appeared to be quite common in the District especially at Top Station end and it should be easy to establish it.

(c.) *Crotalarias*.—Several of these are common in the District and might be used.

Of non-leguminous plants useful as cover crops and wash preventors the following were useful and had been established in various places.

(a.) *Oxalis corniculata*.—This was the commonest weed in use and it was evidently very easy to establish. It appeared to give an excellent cover and to completely stop wash on steep slopes.

(b.) *Hydrocotyle asiatica*.—A weed with a round coin-shaped leaf to be found at Letchmi and other places, and

(c.) A weed as yet unnamed in use at Letchmi.

All these were good weeds for the purpose and steep slopes should be kept covered with them. Occasionally they should be lightly forked in, turning them over in big clods. The best way to establish these cover crops was by means of selective or preferential weeding. The coolies could easily be taught to recognise and leave these plants and they thus soon established themselves.

A further use of cover crops was as green dressings to supply organic matter which could be periodically buried in the soil. Of these the following were suitable:—

(a) *Dadap*.—Where this will grow at the lower and wetter elevations it is undoubtedly one of the best of all green dressings for Tea.

(b) *Albizzias*.—These are being increasingly used and should prove of great value when thoroughly established.

(c) *Crotalarias*.—Two species very common on the grass lands might be introduced into the Tea. *C. fysoni*, a creeping plant to be found on banks by road sides in the green land and *C. ovalifolia* the common *Crotalaria* of the grass land growing two feet or so in height.

Of other methods of preventing soil erosion the possibility of terracing was the most important. Prunings might be buried in trenches along the contours of the hills and if this was done leaving the brushwood projecting from the ground natural terraces would gradually be formed.

When new land was opened the Tea should be planted on steep slopes in lines along the contours of the slopes instead of up and down the slopes and all work should be done along these contour lines, weeding, cultivation, plucking and pruning. This would tend to form natural terraces and the soil would be conserved.

Mr. Anstead said that he hoped this problem would be attacked systematically as he was convinced it was one of the most important ones the District had to face. Much had been done since his last visit but he would like to see cover crops introduced, contour burial of prunings, and contour work and planting taken up over large areas instead of here and there experimentally.

(To be continued.)

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

RESTRICTIONS ON THE IMPORTS OF TEA INTO THE UNITED KINGDOM.

The Committee discussed the position in this connection at some length. In his speech in the House of Commons on 23rd February the Prime Minister had stated that the importation of foreign tea into the United Kingdom would be prohibited, and that the imports of Indian tea would be reduced to a certain extent. It has been subsequently stated that exports of Indian tea to the United Kingdom would in future be limited to 7,000 tons monthly on the average, this figure including tea purchased by the War Office. The Committee were not clear as to whether the interpretation should be "7,000 weight tons" or "7,000 shipment tons," but they assumed that the former would be the correct meaning with regard to the question generally, the Chairman mentioned that he had seen the Director-General of Commercial Intelligence, but that the latter had received no information with reference to the restriction. It was decided to wire to the Indian Tea Association (London) asking for full information as to the actual position. It was understood that, in view of the intimation regarding restriction, the Collector of Customs had meantime considered it necessary to stop shipment by several vessels loading or shortly to load, and it was decided to wire to the Government of India, Department of Commerce and Industry, requesting that he should be authorised to allow shipment by these, pending the receipt of definite information and instructions in the matter.—*Abstract of Proceedings of a Meeting of the General Committee, Indian Tea Association, 28th February, 1917.*

MARKETS, PRICES, AND STATISTICS.

Coffee.

Brazil receipts to 19th February:—

1917.	1916.	1915.	1914.
10,337,000	12,692,000	9,799,000	11,800,000

Offerings in auction have been:—

—	15—20 Feb	Since 1st Jan.	Last Year.
East Indian	—	40*	658*
Costa Rica	871	6,945	14,165
Other Milds	357	9,009	31,783
Brazil	3,461	31,675	7,601
Robusta	—	501	146
B. E. A.	1,212	1,454	—
Uganda	1,126	1,449	2,996

*Old Coffee.

Messrs. T. H. Allan & Co., in their Weekly Report dated 21st February say that the supplies offered during the week have been very moderate. A large proportion has passed unsold, but anything really desirable has met with good competition at full prices. East Africa fetched very high prices. Such prices can hardly be looked upon as reliable as they are mainly due to the peculiar condition of home trade coffees at present and the very extreme figures touched in some cases are matters of personal competition more than intrinsic value.

The Mysore Chamber of Commerce Weekly Report dated 26th March states that the local price of Coffee per maund of 26½ lbs. is, Peaberry from Rs. 13 to 14, Parchment, Rs. 8 to Rs. 9, Native, Rs. 8 Chickmagalur quotes per maund of 28 lbs. Peaberry from Rs. 12 to Rs. 12/8, Native Rs. 8 to Rs. 8/5.

Tea.

The following figures are published by the Indian Tea Association:—

	1917.	1916.
Sailings to Great Britain, in January — lbs.		
From Calcutta	8,801,198	10,086,260
From Chittagong	7,273,802	Nil.
From 1st April 1916 to 31st January 1917...	183,602,183	198,458,233
Sailings to Australia and New Zealand—		
In January	883,669	846,857
From 1st April 1916 to 31st January 1917...	4,351,304	8,669,778
Sailings to America—		
In January	627,142	1,190,106
From 1st April 1916 to 31st January 1917...	4,964,980	11,063,431
Sailings to Other places—		
In January	3,990,632	8,282,996
From 1st April 1916 to 31st January 1917...	40,396,903	44,552,496
Sailings from South Indian Ports—		
In January	1,736,115	507,643
From 1st April 1916 to 31st January 1917...	17,068,312	17,512,089
Total Sailings—		
In January	23,312,558	20,913,862
From 1st April 1916 to 31st January 1917...	249,382,682	280,256,026

The following were the sailings from South Indian Ports during the month of January 1917:—

From Cochin—				lbs.
To London	...	...	...	376,487
To Asiatic Ports	...	...	...	17,426
From Tuticorin—				
To London	...	...	...	195,449
To Colombo	...	...	...	36,875
To St. John N. B.	...	...	...	395,976
From Alleppey—				
To Colombo	...	...	...	4,885
From Calicut—				
To London	...	...	...	661,080
To Bombay	...	...	...	43,070
To Colombo	...	...	...	4,752
To Kathiwar	...	...	...	15

Total Sailings... 1,736,115

2,300,287 lbs. of Tea were exported from India to Russia during the month of January 1917. The exports of Tea from Ceylon from 1st January to 19th February were, Black, 16,820,008 lbs. Green, 510,025 lbs. the corresponding figures for the same period last year being, 16,215,654 lbs. and 410,968 lbs. respectively.

According to Messrs T. H. Allan and Co.'s Report the demand has been quieter and prices generally about $\frac{1}{2}d.$ to $\frac{3}{4}d.$ easier for the week ending 21st February.

The following prices were obtained for South Indian Teas at the London sales of 19th February.

	B.O.P.	B. P.	Pek.	P. S.	B.P.S.	P. F.	Fgs.
TRAVANCORE.							
Stagbrook	1/3	1/2 $\frac{1}{2}$	1/2 $\frac{1}{2}$	...	1/2 $\frac{1}{4}$	...	...
Vembenard	1/4 $\frac{1}{4}$	1/3 $\frac{3}{4}$	1/2 $\frac{3}{4}$	...	...	1/3	...
Yellapatty	...	1/4 $\frac{3}{4}$	...	...	...	...	1/4 $\frac{3}{4}$
Nullatanni	...	1/3 $\frac{3}{4}$	...	1/2 $\frac{1}{2}$	...	...	...
Gundamally	...	...	...	...	...	...	1/3 $\frac{3}{4}$

Rubber.

The market during the week ending 21st February alternated between firmness and dullness without any very material change in prices which have fluctuated from about 3/- to 3/- $\frac{3}{4}$.

The Thodapuzha Rubber Company during 1916 harvested a crop of 110,933 lbs. of rubber from 756 acres.—a yield of 147 lbs. per acre. This cost 12'42 annas per lb. to produce and sold at an average price of Rs.1'14 per lb. nett. The estimated crop for 1917 is 125,000 lbs.

Spices.

PEPPER.—Home market very firm Tellicherry 11 $\frac{3}{4}$.

Local prices range from Rs.11/12 to Rs.12/8 per maund of 25 lbs.

R. D. A.

TEA.

A Few Hints on Manuring.

(Continued.)

Tea estates are often kept scrupulously clear of weeds. Whether this is wise with fields which have no rotation crops it is not so easy to determine, though I am inclined to believe that weeds would be useful, not merely to prevent the washing away of the soil on the mountain slopes, but also to remove from the fields the effluvia from the roots of the tea plant that would otherwise become over-concentrated in the soil. The same purpose is probably served by the grasses and bushes in forests.

A coffee planter of the forties writing from Dublin on September 24th, 1899 (*vide* "Tropical Agriculturist" November 1900) says:—I must bear record to the only practical planter I ever met in Ceylon (George Crosbie). After he had planted "Bowhill" near Nawalapittiya, he never allowed hoe or scraper to be used by any of the weeding gangs: instant dismissal was the punishment for any infringement. The consequence of this wise rule was a growth of moss all over the planted portion and, in seasons when short-handed, he had the berries picked from under the trees and cleaned at his store, such coffee realising 5s. per cwt. more than parchment at Colombo. After his death new-fangled ideas were introduced, hoe and scraper came into requisition and soon the soil which "G. C." tried to secure for the nourishment of the coffee tree was running off as peasoup to enrich low lying paddyfields; the tree roots were exposed and gradual decay set in. For ten years the average of Bowhill was 10 cwt. 1 qr. 15 lbs. per acre. After the new change it dropped off to 9 cwt. 7 qrs. and 5 lbs. and then 3 cwt. per acre, and eventually like all other estates similarly treated, became worthless. Poverty brought disease, which, like any other plague, extends and lays hold of good and bad. In this case, however, there was no remedy, for coffee is a surface feeder and the soil which should be strictly conserved was wasted. The soil on Ceylon hills is light, and never can be replaced by artificial manure, and to keep cattle is unproductive, as I know by experience. I never saw a cooly drop his manure beside a tree that had to be holed to receive it, but I said—there goes 3s. If this be advisable with a surface feeder like coffee, it ought certainly to have force with reference to tea and one is not therefore surprised when a Java tea planter wonders whether the ultra-cleanliness from weed that every Ceylon planter thinks a *sine qua non* of good tea cultivation has anything to do with the increase in both the quality and quantity of disease which tea in Ceylon seems more subject to than in Java. He believed tea to grow stronger among weeds if bad grasses were forked out and the fertilising weeds not allowed to grow too luxuriantly and then dug in. He stated that the only estate in Java on which he had seen grey blight belonged to a Ceylon man resident in Java on whose estate not a single weed could be seen.

Owing to the heavy cost in nitrogenous manures Mr. Herbert Wright suggested to the Ceylon planters the use of green manures, giving the most roseate hue as to the results expected. There are three points, however, which require careful consideration before green manuring is resorted to, in order to avoid a possible danger of extreme harm being done to the bush:—

1. How long will it take for the nitrogen collected by the leguminosae to be at the disposal of the tea bushes after digging in, and to what extent will the bushes, in the meantime, suffer from a want of nitrogenous fertilisation?

2. How much harm will be done to the tea bushes by the withdrawal from the soil of the available phosphoric acid and potash necessary to enable the leguminosae to gather the nitrogen of the atmosphere?

3. And, perhaps the most important question will the tea plant thrive in the neighbourhood of such green manures as the ground-nut?

Festina lente ought to be the planter's motto. Let him first try his experiments whether with ground-nut, crotolaria or any other leguminosae, on a small scale, for a number of years, before resorting to any wholesale changes that may possibly bring upon his field a devastation as wholesale so that to which coffee was subjected.

For tea-sick soils there is no doubt the growing of a shrub or grass, that would feed upon the tea plant, would be a remedy together with manuring, but aeration and perhaps deodorising with charcoal will be found the only remedies, as rotation is impossible on tea estates. The experiment would not entail much expense and would probably repay the cost and troubles many times over in the first year.

What manures are most suitable to tea is a question long discussed by a number of practical planters anxious to make the most of their gardens—men, who move with the foremost agriculturists of the day. In all their discussions in India, however, they seem to watch results obtained by single manures or chemical combinations that are not complete fertilisers, as they do not supply all the principal ingredients of plant-food. Another great difficulty with tea is the question of not merely large supplies in response to fertilisers, but the more important one of flavour which settles price. Experienced planters when speaking of different manures give almost diametrically opposite opinions as the results of their experience. If ever a chemically correct combination of manures can be spoiled by the absence of one scarcely thought of little item, it is to be found in the case of tea. As excellent food can be ruined for the want of a pinch of salt, so manures otherwise complete are rendered far from perfect in their results by some apparently trifling omission. The analysis of the tea plant alone will not help as here, for the aroma cannot be easily analysed, though the latest researches regarding the tea enzyme put us on the road to discover the substance whose trifling omission in manure makes all the difference between good tea and rubbish. According to Dr. Wolff's tables, in 1,000 parts of the fresh air-dried substance, the tea leaf contains (medium quantity) :—

Water	80.0	Magnesia	2.4
Nitrogen	35.6	Phosphoric acid	7.2
Ashes	47.6	Sulphuric acid	3.4
Potash	16.4	Silicic acid	2.4
Soda	4.9	Chlorides	0.9
Lime	7.1		

It is strange that iron figures so little in the leaf and so much in the soil of the plantations. Throughout Ceylon there seems to be almost a regular rise in the price of the tea according to the increase in the amount of iron in the estate. Another peculiarity about tea is that lime and phosphoric acid which seem required, to such an extent, by the plant, are seldom found naturally in any degree in the spots chosen for planting. There is a most interesting article by Dr. Harold H. Mann, D. Sc., then Scientific Officer of the India Tea Association, (now Principal of the Agricultural College, Poona) on "The ferment of the tea leaf and its relation to quality in tea." An extract from this will show the value of phosphoric acid in flavouring the best leaves, a material little found in many of the soils where tea is grown and yet a manure that can easily be supplied by bonemeal or basic Slag.

The *Tropical Agriculturist* of March 1902 describes a plant enzyme as "a substance existing in the sap, and which is capable of inducing chemical changes necessary to the life of the plant, As an instance we may

quote the commonest of plant enzymes, known as diastase which has the power to convert the reserve starch into a soluble sugar, which can be conveyed to the growing parts of the plant." In the leaves of tea, up to the present no starch has been found, so that the action of the tea enzyme *in the leaf* is of a nature different from the above. Nevertheless, its function, that of rendering insoluble bodies into a soluble form, is probably similar to other enzymes.

In one or two instances the action of an enzyme has been utilised commercially to induce chemical changes, which result in the production of a more or less distinctive flavour. As an instance we may take yeast, a common plant, from which no less than five enzymes have been extracted. It has been found that different yeast cells impart to a fluid a different odour and flavour, and this has been used on the continent in the improvement of certain wines. It was shown that if different portions of the same grape juice were fermented with different species of yeast wines were obtained which differed much in flavour, because each species of yeast has the power of producing, during fermentation, certain characteristic flavouring bodies. As has been previously pointed out, however, we must remember that all such fermentations require a great deal of time for completion and they are therefore not strictly comparable with the changes occurring with the manufacture of tea. It would be unwise to jump to the conclusion that the enzyme in tea is responsible for what we at the present time know as flavour, although it is possible that under certain conditions the enzyme will be found to materially affect the quality, and perhaps, to some extent, the flavour.

From Dr. Mann's valuable work on the subject the following is extracted :—

" *Distribution of ferment in the flushing shoot.*"—If the various leaves on a flushing shoot be taken, the amount of enzyme is by no means the same in every part. The fresh leaf for instance contains about an equal amount in the unopened tip leaf and in the stalk, but below the tip the percentage decreases in every leaf. Taking the leaf plucked for instance on a China hybrid bush in September, the following table gives the relative amount present in each leaf separately, calculated both on the fresh leaf and on the dry matter in the leaves (taking that in the tip leaf as unity).

	Active Enzyme	
	On fresh leaf.	On dry leaf.
Unopened tip leaf	1'00	1'00
First open leaf	'64	'65
Second open leaf	'48	'48
Stalk	1'13	1'64

These figures apparently seem to indicate that where the largest quantity of enzyme is present, the best tea is made, and yet not wholly so, because the stalk which is objectionable in the tea, contains as much as any part. The reason of this is seen, however, if the relative amount of acidity, of tannin, and of phosphoric acid in the same samples of these leaves are taken.

These give the following figures :—

	Acidity		Tannin		Phos. Acid.	
	Fresh.	Dry.	Fresh.	Dry.	Fresh.	Dry.
Unopened tip leaf	1'00	1'00	1'00	1'00	1'00	1'00
First open leaf	'94	'94	1'03	1'03	'88	'88
Second open leaf	'94	'94	'91	'91	'75	'75
Stalk	'47	'70	'59	'86	'55	'79

It therefore appears that, where a large amount of enzyme is combined with the greatest acidity and with the greatest amount of tannin, there the tea produced is the best. Such is only a preliminary conclusion, and it must be considered strictly applicable to similar conditions. It is however one to which the next set of experiments gives support.

Relation of ferment to quality.—Several gardens were taken in the Darjeeling districts. "A" produced average or rather better than average Darjeeling tea; "B" has for many years produced absolutely the best tea in India; "C" is giving, during the present season, the highest priced product in the district. Conditions being therefore as near as possible equal, the quality, if the above condition be true, should vary according to the amount of enzyme present, provided the same amount of stalk or approximately so, be present in the samples. Comparing first, garden "B" with garden "A," "B" No. 1 is from a young Assam or high hybrid extension giving very fine tea. "B" No. 2 is from a low Assam extension giving the worst tea on the garden, but yet an above-average quality. "B" No. 3 is from China tea, giving an excellently flavoured product. Determining the enzyme present in each of the samples in September 1900, and comparing the amount with that in "A" (China hybrid plant) we have, taking "A" as unity:—

	Active Enzyme.
A.	1'00
B. No. 1	1'88
B. No. 2	1'17
B. No. 3	1'83

In this case active enzyme seems therefore to be a fair measure of the quality producing character of the leaf. The same result is shown on garden "C" as follows:—

	Active Enzyme.
A.	1'00
C. No. 1	2'17
C. No. 2	1'44

Here C No. 1 represents the very highest quality Assam bushes and C. No. 2 similarly the best China plants in the garden. In C No. 1, probably a little larger stalk occurred; but A and C No. 2 are absolutely comparable and here it will again be seen that flavour in the tea follows the enzyme in the leaf. Hence one may, I think, conclude that other things being equal, the flavour in the product is materially connected with the quantity of oxidase in the leaf from which it is made. This conclusion as stated above, will have to be supported by many more experiments before one can consider it satisfactorily established, but in the meantime there is strong and consistent evidence of its substantial accuracy.

How then can oxidase be increased in the leaf? In a table on page 8 it was shown that, taking the various leaves in the same stalk, the amount of phosphoric acid varied very closely with the amount of oxidase. In addition to this I (Dr. Mann) have in a previous report (Tea soils of Assam and Tea manuring, November 1901) brought forward very strong evidence that the quality of tea is materially influenced, at any rate in Assam, by the amount of phosphoric acid, and especially of available phosphoric acid in the soil. Now not only is phosphoric acid present in greater quantity in the leaves on the same stalk which gives the same enzyme and produces the best tea; but also there appears to be most of the constituent in the soil of those gardens giving leaf containing the most

oxidase and making the best tea. The following figures for the soil of the gardens A and C where the leaf mentioned above was obtained, show this very clearly.

Percentage in the Soil A. ... '061; C. ... '124

The conclusion drawn in my previous report abovementioned that, in order to obtain high quality of tea, there must in any case be a large quantity of phosphoric acid present in the soil, is here confirmed, and this phosphoric acid becomes, in addition, apparently connected with the quantity of enzyme in the tea leaf."

From the analysis we see the need of potash, and from Dr. Mann's learned and interesting paper, the value of phosphoric acid, and we should recommend these as additions to any other manures used.

Though it would be advisable to know something of the land to which a manure should be applied, a fairly good idea of the requirements of tea estates can be gathered from the interesting experiments, and their results shown in a paper of Mr. W. D. Bosanquet read by the Chairman, Dimbala Planters' Association at a General Meeting.

He had had many years of experience with coffee till green bug wiped that off the land, and since then made careful experiments of the effect of manures on quantity and quality alike. He says:—"With the coffee it was comparatively a simple matter as the object was solely to find out how to produce the largest crop with the least injury to the tree, whereas with tea it is at least as important to find out how far the quality is affected by the manure. On this latter point I have only been able to draw my conclusions from my general experience. Many seem to think that all manures should be suppressed by legislation, as tending to over-production, which is not only impracticable but shows how little the true principles of manuring have been grasped. I believe it is quite possible to manure in such a way as to keep the tea at a normal level of production combined with a good quality and that it will pay better in the long run to work on this system. Such at any rate are the conclusions I have arrived at after ten years of experience of manuring tea and eight years of experiment. My first experiments were conducted with the object of finding out the most important element required in a manure for tea and were so carried out as to compare the results of adjoining plots of one-sixth of an acre by leaving out one element in each plot on the plan of Mr. Villa. The most important elements removed by the tea crop are in 1,000 lbs. of tea:—

Nitrogen ... 45 lbs.

Phosphoric acid ... 8 "

Potash ... 22 "

I was very soon convinced that the dominating element was nitrogen—that is to say, without nitrogen, phosphoric acid and potash were almost inert. That for the best effect, all three elements were required, and more especially potash. That additional nitrogen meant an increased yield but did not invariably pay, owing to the great cost of nitrogen.

The great cost involved has prevented my experimenting in the direction of finding out the effect of different manures on quality, and I have to fall back upon general conclusions from the observations on manuring on estates under my own direction and that of others.

Nitrogenous Manures.—As regards their effect on quality I give the preference to castor cake. Blood meal alone is too forcing and quickly used up. Sulphate of ammonia has invariably appeared to me to be accompanied by a loss of quality, whether used by itself or in combination, though it may be only a coincidence.

Fish manure I have used only once, and I confess I have a dislike to it as being too stimulating in its effects, and its use has seemed to me usually accompanied with a loss in quality.

Nitrate of Potash.—I think useful as a source of nitrogen and potash—the nitrogen coming into action very quickly but being speedily washed out in wet weather.

Phosphoric Acid.—Basic Slag I look upon as a very valuable source of phosphoric acid and I am inclined to endorse Messrs. Freudenberg and Co.'s statement that it tends to maintain quality in tea owing to the two oxides of iron it contains.

Bones.—Either steamed or ground should, I think, form part of every manure mixture, as the phosphoric acid contained in them comes into action gradually and is not too speedily used up.

Potash.—I give the preference to sulphate of potash as the source of potash, as being retained in the soil better than the nitrate. Potash I consider is a most important constituent in a manure if quality is to be maintained. Potash is known to have great effect upon the carbo-hydrates of plants, that is to say, upon their main structure and ever since the time I commenced my coffee experiments I have noticed that potash improved the health of the trees to which it was applied. I believe it is of great value in helping them to resist diseases of a fungoid nature. The manure most commonly used by those not well up in manuring is castor cake and bones which is an incomplete manure as containing a negligible quantity of potash. A well-balanced manure such as your agricultural chemist supplies you with, has its constituents so arranged that each element comes in gradually and simultaneously, and the more the point has been considered the greater the value of the manure in tea cultivation. An ill-balanced manure will stimulate the bush at first and then leave it insufficiently supplied with nourishment. The typical manure generally used is :—

Castor Cake	... 400 lbs.
Fish	... 400 "
Nitrate of Potash	... 100 "
Sulphate of Ammonia	... 100 "

A manure low in nitrogen and rich in potash and phosphoric acid showed a distinct improvement in the crop.

In my strong objection to forcing manures, I am at any rate in good company, for you have only to read Mr. Bamber's report on tea soils to see that he condemns them. From what I hear, I am inclined to think that our leading authority on manuring is of much the same opinion also!"

The correcting influence as far as aroma is concerned appears to arise from a sufficiency of phosphoric acid. I would therefore recommend a slow acting manure, which, while being cheap, would be effective in producing both quality and quantity and at the same time help to enrich the soil. The plant food given to the soil would be 81 lbs. nitrogen, 37 phosphoric acid, and 60 potash.

The following mixture has proved very successful in Travancore :—

Groundnut or castor cake meal, per acre	... 16 cwt.
Basic Slag or bone meal	... 1 "
Sulphate of Potash	... 1 "

I do not recommend the direct application of lime. There is a sufficient supply in bone and basic slag, and a judicious application of it to composts will satisfy the needs of the plant.—*Intensive Farming in India.*

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 15]

APRIL 14, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The following two telegrams have been received by us, the first, dated 7th April, reads as follows:—

"No final settlement yet.—Mockett."

The second from the Empire Producers' Organisation dated 5th April:—

"Rees again raised question coffee prohibition yesterday. Secretary Board Trade stated Board recommended permitting importation half total crop. Board of Trade informs us figures sent from India eleven hundred tons left Estates total forty-one hundred may be subject to revision if crop proves larger but fifty per cent represents utmost concession in tonnage. We believe Government may entertain claim for compensation. Recommend Association press this."

These have been forwarded to the Chairman. Before the question of compensation can be gone into and pressed as suggested it will be necessary to get definite and accurate figures from Coast Curers who have been written to by the Chairman already. We hope therefore that all Coffee planters will give very exact figures of their crops, viz., the amount already shipped, the amount remaining to be shipped from India after the prohibition order of 23rd February and the total crop picked. If planters and coast agents will combine to give exact figures then a claim for compensation can be based on them.

This issue contains the Deputy Director of Agriculture's Tour in the High Range, the Proceedings of the North Mysore Planters and Nilgiri Planters' Associations, the weekly Market, Prices and Statistics, Some observations on Tea Seedlings and Coffee.

The Manager, Mercantile Bank of India, Ltd., writes us as follows:—

"The Directors recommend a dividend of 7% less Income Tax for the half year ending 31st December last on both 'A' and 'B' shares, making 12% for the year. They propose to place £50,000 to Reserve Fund and carry forward £32,000."

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	59,232	0	2
Mr. A. J. Wright	...	20	0	0
Mr. A. S. Dandison	...	50	0	0
Messrs. T. Stanes & Co., Ltd.	...	250	0	0
Total	...	59,552	0	2

DEPUTY DIRECTOR OF AGRICULTURE'S TOUR IN THE HIGH RANGE.

(Continued.)

Manuring.

Since my last visit a certain amount of manuring has been done more especially liming. The soils of the District show by their analyses that they are chiefly deficient in Lime and Phosphoric acid, and the rational system of manuring to adopt is undoubtedly to apply these two constituents beginning on the ridges.

The biggest crop removed from the Tea is the prunings and these should be returned to the soil by burying them and at the same time an application of about 500 lbs. of slaked lime and one cwt. of Basic Slag should be applied. Potash is not as a rule deficient and at the present time Potash fertilisers are at a prohibitive price. All available Ashes from the factories and cooly lines should be systematically collected and stored in pits under cover to keep them dry and these may be conveniently applied at the same time as the Lime and Basic Slag.

In other Tea districts it is usual to follow this treatment up about six months later with an application of about 500 lbs. per acre of a good general fertiliser, but in the High Range the cost of transport will always be against heavy manuring of this sort, and the way to begin is undoubtedly to apply Lime, Basic Phosphates, and Ashes in the first place. Basic Phosphatic fertilisers, that is those containing Lime, such as Basic Slag and Basic Superphosphate should be chosen in preference to ordinary Superphosphates which are acid. This must be obvious since the soils are deficient in Lime.

The time will undoubtedly come however when more complete manuring than this will be a necessity and it is advisable to carry out experiments now to discover what is the most efficient and economical system of manuring to adopt and manurial experiment plots with unmanured control plots as checks should be laid down. In some places experiments with check plots are being conducted and here it is advisable to count the number of trees on each plot and not base results by acreages as on account of the ravages of rats which kill patches of trees and for other reasons it often happens that two acres of Tea do not contain the same number of bushes or do not really represent acres in full bearing.

Diseases.

As a whole the District is still remarkably free from Diseases. One of the most important is Root Disease which on some estates causes a considerable amount of local loss. There are probably at least two different fungi at work but until the hoped for Mycologist is appointed these cannot be worked out in detail.

The treatment recommended has been frequently described in these pages and I only wish here to emphasise the fact that the work to be really efficient must be thoroughly done. When a bush which has been killed by Root Disease is dug out all the dead wood from the pit should be carefully collected and burned, dead roots in it should be followed up outside the pit and removed and if a dead jungle stump is in the immediate neighbourhood it should be removed. If this is not thoroughly done re-infection takes place, the supply is attacked in a year or so, and the work has to be done over again.

Of Leaf Diseases two of importance are present. In one portion of the District *Gleosporium* has done a considerable amount of damage by causing a defoliation of the bushes and a dying back of the wood. This was reported to me some years ago and the treatment then recommended has been carried out with success. As soon as the disease starts the attacked leaves should be picked off, the dead and fallen ones collected and buried as far as possible, the soil limed and cultivated thoroughly and the bushes sprayed with Bordeaux Mixture. At the same time an application of Nitrolim may be given to restore the foliage to the bushes as rapidly as possible.

As already stated this method of control has been successful but its efficiency depends on doing the work more especially the spraying early. As soon as the disease is noticed, and before it can make headway the spray should be applied.

Brown Blight about which a good deal has appeared in the *Chronicle* lately is present but does not seem to do much damage. It should however be carefully watched, as in other districts it has shown that it is capable of causing a considerable amount of loss, especially nurseries, where in former years it had been negligible.

The relation of Swamps to all diseases should be carefully borne in mind. When a disease attacks Tea it often happens that it gets on to weeds and wild vegetation in the swamps and these act as hot beds of infection. It is of little use to spray the Tea if it can be constantly re-infected from Swamps. All swamps should be cleared and cleaned up and planted with one class of plant, either Gums or Dadap, and systematic annual expenditure on this work till all the swamps are cleaned and under control is a paying proposition and of immense value when any disease gets into the Tea.

The District as a whole is undoubtedly free from diseases to a remarkable extent but it should be remembered that several are present and are a potential danger. Conditions little understood and often impossible to control, conditions of climate and rainfall, may at any time suddenly favour a disease which may then assume dangerous proportions with marvellous rapidity.

The utmost care should be taken also not to introduce any new diseases. All Tea seed imported into the District should be disinfected. This is a cheap and simple process. All that is necessary is to soak the seed for two minutes, in a solution of 2% Commercial Formalin before it is put down for germination.

Also a close watch should be kept on the *Gleosporium* disease mentioned above. This at present only occurs in one isolated part of the District and every precaution should be taken not to introduce it into the rest of the District and a careful watch should be kept for it and steps taken to control it at once should it appear.

While it may be impossible to ever entirely stamp out a disease once it has made its appearance on any particular area a great deal can be done to confine diseases to certain definite areas and to prevent their spread and introduction to new areas.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS**North Mysore Planters' Association.**

Proceedings of the Quarterly General Meeting held at Balehonnur on the 12th March, 1917 at 10 a. m.

PRESENT.—Messrs. C. H. Browne, C. P. Reed, C. S. Crawford, F. W. Hight, A. Frend, C. Danvers, (Chairman) and W. H. Reed, (Honorary Secretary).

ASSISTANT SCIENTIFIC OFFICER.—It was resolved that the terms of Mr. Frattini's agreement be adhered to, also that the Council of Mysore Planters' Associations automatically ceases on Mr. Frattini's retirement.

MULNAD AGRICULTURAL FARM.—Read letter No. 828-3 D/21st February 1917 from the Deputy Commissioner, Kadur District, asking for views of this Association on the proposed Agricultural Farm. After considerable discussion it was resolved, that Government be informed that in the opinion of this Association the Experimental Planting Farm would be of great value to the planting interests in the State, and that the cost should be entirely borne by Government. But if Government is not prepared to bear the whole cost of such a Farm as is done for other branches of Agriculture, the Association is prepared to accept a cess of one Anna per acre on all sorts of planting, which would pay for half the recurring expenses of the planting section.

The choice of the place for the station would be best left to the Director of Agriculture.

ANNUAL MEETING OF THE U.P.A.S.I.—The Meeting was against the proposed change, and the following resolution was passed:—This Association presumes that the Chairman must have very full and undivulgable reasons for his suggestion to move the place of Annual Meeting from Bangalore to Ooty, and so consents to the change of place for this year only. But on the surface there does not appear to be adequate reason for the change.

MALNAD KHANS.—Read letter from Mr. R. G. Foster calling attention to the refusal of Mr. Pilkington's Dharkast for Survey No. 4 of Hiroor village on the ground that it is considered unadvisable to grant Malnad Khans for plantation purposes. It was resolved that the Honorary Secretary be asked to forward the papers to the Council of Mysore Planters Associations for adding to the subjects to be discussed with the Dewan, and also to address the Deputy Commissioner asking for definite information as to what constitutes a Khan.

PROHIBITION OF COFFE INTO THE UNITED KINGDOM.—Correspondence relating to this subject was received too late to appear on the Agenda paper, It was agreed that this Association should move at once in the matter, and that a meeting should be arranged in Bangalore as soon as possible. Mr C. H. Browne was elected to represent the Association. The following telegrams were sent to the Secretary U. P. A. S. I. and Mr. C. Lake:—(1) Planting, Bangalore.—Appointed Browne meeting Chamber of Commerce have asked Lake to attend ask Rose fix date of meeting end week or beginning next wire Browne and Lake direct. (2) Lake, Saklaspur:—Appointed Browne delegate attend meeting Mysore Chamber of Commerce Bangalore end of week regarding prohibition coffee imports will you or substitute give evidence with him will wire exact date later reply to Browne.

(Signed) W. H. Reed,
Honorary Secretary.

Nilgiri Planters' Association.

Ootacamund, 7th April, 1917.

Proceedings of the Extraordinary General Meeting of the Association held at 11 a.m., Saturday, the 7th April, 1917, at the Armoury, Ootacamund, to consider the question of Exemption Tribunals in connection with the Compulsory Service Scheme; and to elect a planter for Government nomination as non-official member on the Exemption Tribunal in the Nilgiri District area.

PRESENT—Messrs. A. A. Dandison (Chairman), L. A. Gerrard Rogers Vice-Chairman, J. B. Vernede, R. Bake, K. Harper, R. Stanes, E. Sydenham Clarke, F. Cockburn, T. J. Kenna, H. M. Hewitt, J. Tippetts, R. N. C. Grove, C. L. Egan, P. L. D. Beaver, J. E. Bissett, W. W. Moir, N. J. Stanes, W. A. Cherry, A. K. W. Downing, and J. B. Leslie Rogers (Honorary Secretary). BY PROXIES:—Messrs. J. Stanes, W. Deane, A. G. Nicholson, D. J. D. Cockburn, N. Grey, W. Rhodes James, and R. S. Hunter. *Visitors*:—Messrs. A. R. Cumming, I.C.S., District Magistrate, E. H. Jones, D. S. P. & F. H. Gerrard, and Major Johnstone Smith.

The Chairman opened the meeting with the following explanatory address:—

"Gentlemen, this Special Meeting has been called at the request of several planters, and you are aware of its objects, *i.e.*, the proposal that a planter be appointed as Civilian or non-official member of the Compulsory Service Exemption Tribunal, where the Military area includes our planting District.

"As this is a matter of great importance to us the Meeting was arranged by telegram in order to issue notices with the minimum of delay, and I think we ought to congratulate our Honorary Secretary on his promptness.

"The amount of capital invested in, and the welfare of thousands of labourers employed by the Planting Industry are matters which must concern deeply all those who sit in high places and guide our destinies at the present time.

"Our Planting Industries are an Imperial asset and to even risk anything at the present time is I say unhesitatingly, "playing the enemy's game." Any subject affecting them should be dealt with by a man who understands intimately the conditions under which we work, and who is more capable of assisting the Tribunal than a Planter?

"A well known person at Home said some time ago, "look after the war and 'after the war' will look after itself." This was possibly applicable at the time, but knowing as we do *now* the steps Germany is taking for a trade war, when present hostilities have ceased, it behoves us to think of the future as well as the present, and it is with this object in view that the present Meeting has been called.

Every planter worthy of the name of planter heartily approves of compulsory service. Men who used to attend our meetings have given their lives for the Empire: many have been wounded, while others are now fighting in France or elsewhere. Practically all of us, who for various reasons, age, etc. etc. did not join the active forces have joined the Volunteers, and some of us have been mobilised and done military service for a considerable period and are ready to do so again *without compulsion*.

I have referred to the foregoing to show that we have fully recognised our responsibilities, *and accepted them*, and that our proposal today is not with the object of getting a "pal" on the Board to exempt us! Personally we do not want exemption; but the welfare of the Industry needs that certain men be exempted.

We shall have to pay for the present war for many years to come, and unless we do all we can now to ensure future commercial prosperity it will fall hard not only on us but on the next generation also. As planters you yourselves know what it is to leave the estate to an inexperienced subordinate: the complaints from maistries and coolies, etc., etc. If then this is true of a fortnight's holiday, what would it be after a year's absence? Labour force upset, work undone, crops lost, and the property damaged through want of proper supervision. It needs a planter who knows that this is not a fancy picture but a reality which has happened and will happen again, to grasp fully the situation and deal capably with the problem of working estates with the least possible amount of expert and trustworthy supervision.

I referred to the coming Trade War that Germany expects great things from; and to combat this successfully it is necessary now to do all we can to ensure our own commercial prosperity, and with this in view it seems a false move to do anything that would restrict the development of our industries.

If planters are indented on too freely for military service it will certainly check development of our unplanted areas. This will react on the welfare of the labourers whose wages are automatically increasing with the demand; it will react on British Shipping (after the war); it will react on Engineering firms who supply us with machinery, it will react on those who make and supply tools, packing materials, etc., it will react on local saw mills, and on others too numerous to mention.

It seems to me gentlemen, that this is the time to develop as much as possible (not to restrict our resources) not in selfish but in Imperial interests. I fully realise that the Hun must be smashed first and foremost, but it would be a barren victory if our industries are impaired.

A planter and a military man working together on a tribunal in planting areas seems an ideal combination, and more especially so in this district, where planters have (I speak under correction) larger interests than others concerned; but apart from this I am convinced that such an appointment would give general satisfaction. I would reiterate the fact that we ourselves do not want exemption, but we consider that national interests demand not only the continuance, but the development of our industries; and that a planter alone is in a position to judge conditions and decide who can, and who cannot, be spared. It would however be up to us, I take it, to elect a man who is over military age, and in whom we could implicitly rely to safeguard our industries, while having no mercy on that abominable species, happily rare, the slacker.

I trust that nothing I have said will be interpreted as meaning that we should develop industries to the detriment of the War Loan. In my humble opinion both should receive equal support, in that subscriptions are needed to finance the war, while industrial development is necessary to ensure commercial prosperity, which will facilitate earlier repayment of the Loan.

The following Resolutions were then passed unanimously :—

(1) Proposed by the Chairman—

“That owing to the large number of planters in the Nilgiri and neighbouring Districts, and the exceptional nature of their occupation, and their intimate knowledge of the conditions of their districts, this Association is of opinion that a planter should be nominated by Government on the Exemption Tribunal to represent the non-official European British subjects in the Nilgiri District area; and respectfully requests that the planter elected by this Association be so appointed.”

(2.) Proposed by Mr. L. A. Gerrard Rogers, and seconded by Mr. J. Vernede :—

“That Mr. W. A. Cherry of the Kodanad Estate, Kotagiri, be elected by this Association for nomination by Government as non-official member on the said Exemption Tribunal.”

(3.) Proposed by Mr. L. A. Gerrard Rogers, and seconded by Mr. J. Vernede :—

“That the United Planters' Association of Southern India be requested to represent to Government the necessity of recognising the national interests involved, and that due consideration be shown to those interests when dealing with applications for exemption from the Planting Community.”

(4.) Proposed by the Chairman :—

“That copies of the above Resolutions be forwarded to (a) the Secretary to Government, Madras through the District Magistrate, (b) the General Officer Commanding the 9th Division, and (c) the Secretary of the United Planters' Association of Southern India, and affiliated Associations.”

Mr. Robert Stanes having expressed to Mr. Cumming the members' appreciation of his attendance on this occasion, the Meeting closed with a vote of thanks to the Chairman, and to Major W. Ward for kindly allowing the use of the Armoury, and to Mr. W. A. Cherry for his public spirit in consenting to act on the Exemption Tribunal as representative of the Planting Community and European British subjects generally.

(Signed) A. S. DANDISON,

Chairman.

(„ „) J. B. LESLIE ROGERS,

Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Offerings in auction have been :—

—			21—27 Feb	Since 1st Jan.	Last Year.
East Indian (new crop)	...	...	—	—	—
Costa Rica	...	...	469	7,414	17,635
Other Milds	...	...	1,330	10,339	35,286
Brazil	...	...	4,875	26,550	10,491
Robusta	...	...	—	501	248
B. E. A.	...	...	669	2,123	—
Uganda	...	...	947	2,396	4,674

Messrs. T. H. Allan & Co., in their Weekly Report dated 28th February state that although restrictions on imported goods have been freely talked of, and it was known that such would be imposed, the fact that Tea, Coffee, and Cocoa were to be put on the prohibited list came as a surprise. As matters stand at present all foreign tea is prohibited and imports from India are to be reduced, although nothing has been said as to the extent of the reduction, Coffee and Cocoa of all kinds are prohibited.

No doubt there will be some arrangement for imports under licence, but no details are available at present.

In the case of Coffee, the "Coffee Trade Association of London" has the matter in hand and a Sub-Committee has been appointed to approach the Government Departments concerned and get the necessary information as to the proposed working of the scheme. The Association will doubtless do everything in its power to protect the interests of all concerned. The argument in favour of prohibition is that the present stock is equal to about three years requirements. Some people point out that only a very small proportion of this is available for the English trade, the bulk of it being Coffee which in the ordinary course would have gone direct to the Continent and which would not suit English taste. No doubt this is true, but it is not a very strong argument in War time, when we must be prepared to take what we can get if we cannot get what we want.

As far as we can judge the general desire of both buyers and sellers is to fall in fairly with the Government wishes, the former by meeting the market freely without trying to take advantage of the situation, and the latter by dividing the available supplies so that no one is obliged to go short, but in spite of this attitude the prospect of a stoppage of supplies has naturally affected prices. In auction on 27th February all mild coffees were higher and some Costas touched extreme figures. Tea has met with a strong demand at an advance of fully $\frac{1}{4}$ —1d.

Tea.

The following prices were obtained for South Indian Teas at the London sales held on 26th February :—

	B.O.P	O. P.	B. P.	Pek.	P. S.	B.P.S.	Fgs.
TRAVANCORE.							
Corrimony	...	...	1/4 $\frac{1}{4}$	1/3 $\frac{1}{2}$	...	...	...
Chokanad	...	...	1/5	1/4 $\frac{1}{2}$	1/3 $\frac{1}{2}$	...	1/4 $\frac{1}{2}$
Cherakara	...	1/4	1/4 $\frac{1}{2}$	1/3 $\frac{3}{4}$	1/3 $\frac{1}{4}$	...	...
Bonami	1/5 $\frac{1}{4}$	...	1/4	1/3 $\frac{3}{4}$	...	...	...
Lockhart	1/5 $\frac{1}{2}$	1/5	1/5	1/4 $\frac{3}{4}$	...	...	...
Nullatanni	...	...	1/4 $\frac{3}{4}$	...	1/3 $\frac{1}{2}$	...	...
Kollie Kanam	1/5	...	1/4 $\frac{1}{2}$	1/3 $\frac{1}{4}$	...	...	...
Penshurst	1/4 $\frac{1}{2}$	...	1/4	1/3 $\frac{1}{2}$	1/3	...	1/3 $\frac{1}{4}$
Fairfield	1/4 $\frac{3}{4}$	...	1/4 $\frac{1}{4}$	1/4	...	...	...
Venture	1/5	...	...	1/4	1/3 $\frac{1}{4}$	...	...
Surinallie	1/6 $\frac{1}{4}$	1/4 $\frac{3}{4}$	1/5 $\frac{1}{2}$	1/4 $\frac{1}{2}$	...	...	...
NILGIRIS.							
Nonsuch	1/5 $\frac{3}{4}$	...	...	1/4 $\frac{3}{4}$	...	...	...
Rob Roy	1/5 $\frac{1}{2}$	1/4 $\frac{3}{4}$	1/4 $\frac{1}{2}$	1/4	...	...	...
Prospect	1/6 $\frac{1}{4}$	1/5 $\frac{1}{4}$	1/5 $\frac{1}{2}$	1/5	...	...	...
Woodbriar	1/6	1/4 $\frac{3}{4}$	1/5	1/3 $\frac{1}{2}$	...	1/4	...
Daverashola	1/7 $\frac{3}{4}$	...	1/5	1/4 $\frac{1}{2}$	...	...	...
Barwood	1/4 $\frac{1}{2}$	1/3 $\frac{1}{4}$	...	1/3 $\frac{1}{2}$	1/3	...	...
Seaforth	1/5 $\frac{1}{2}$	...	1/4 $\frac{3}{4}$	1/4	...	...	...
Kodanaad	1/7 $\frac{1}{4}$	...	1/4 $\frac{1}{2}$	1/4	...	...	...
WYNAAD.							
Askem	1/5 $\frac{1}{4}$	...	1/4 $\frac{3}{4}$	1/4	...	...	1/4
Kardoorā	1/4 $\frac{1}{2}$	1/3 $\frac{1}{4}$	1/4	...	...	...	...
ANAMALAIS.							
Sfanmore	1/5	...	...	1/4 $\frac{1}{2}$	1/3 $\frac{1}{2}$	...	...
Paralai	1/5	1/4 $\frac{1}{4}$	1/4	1/4	...	1/3 $\frac{1}{2}$	...

Rubber.

The market has been quiet and during the end of the week ending 28th February prices were decidedly easy closing on 27th February at 3/1 $\frac{1}{2}$.

R. D. A.

TEA.

Some Observations on Tea Seedlings.

BY A. C. TUNSTALL, B. Sc.

During the present season many specimens of unhealthy seedlings have been received by this department. They came from all districts and there is reason to suppose that the year has been a very bad one for nurseries. In a few cases the ill-health could be definitely ascribed to a specific disease, but most of the specimens showed no indications of the attack of any vegetable or animal parasites, and the reason for their ill-health must be sought elsewhere.

These cases will be considered first. The majority of the specimens showed signs of injury at the collar and many had bent and twisted roots as well. A microscopic examination of the tissues of the collars revealed no fungus mycelium nor anything which would lead to the supposition that insects had caused the injury. The cortex and the growing layers had been destroyed. Sometimes the roots were damaged, sometimes the stems, and in many cases the injury was broad enough to include portions of both stems and roots. The position on the plants appeared to be determined by the depth of planting, the injury taking place just at the surface of the soil. There was nothing to prevent the upward flow of the solution derived from the soil, but the tissues, in which the organic food stuff, elaborated in the leaves from this solution and the carbonic acid gas from the air, are transported, were completely destroyed. The roots were therefore cut off from their supplies, for the solution derived from the soil is useless for the nourishment of the plant until it has been elaborated.

In order to remedy the damage the plants had produced swellings above the injured place and, in cases of slight damage, this may have succeeded in bridging the gap. If it had not done so new roots were in some cases produced at the swellings and the old roots died away. Even supposing the seedlings recovered they must of necessity have been severely checked, and will rarely produce satisfactory plants.

It would be best under the circumstances to discard all seedlings injured in this way, without any attempt at curing them. Prevention, therefore, is the only reasonable method of treatment of this disease. The injury is not due to any organic disease but appears to be physical.

A study has been made of the physical conditions under which this disease occurs. In most of the tea districts the weather alternated with those of heavy rain. The disease did not usually occur on shaded nurseries but was generally found only on those exposed to the sun. It would seem therefore that the sun had something to do with it. Moreover the disease was common only on sandy soils. No seedlings growing on clay soils were observed to be suffering from this disease. *Sandy soils get much hotter under the sun's rays than those containing much clay* and it would seem probable that the injury was due merely to the burning of the collars of the seedlings by the sun's rays. The long periods of wet weather which preceded the hot spells would weaken the seedlings and thus render them more liable to injury of this nature.

To prevent a recurrence of the disease, attention should be paid to the following points :

The seed beds should be very carefully drained and shaded and the shading should not be removed until after the hot dry weather which usually occurs in May. If for any reason it is considered advisable to remove the shading before this time a mulch of *dried* grass should be placed round each seedling. This mulch should be stirred up after rain so that it does not rot and thus form a harbouring place for diseases, which may prove more injurious than the damage to avoid which its use is recommended. It is frequently possible to prevent the death of slightly diseased seedlings by the application of a little cattle or other mildly stimulating manure, but as mentioned above the resulting plants are never likely to develop into very satisfactory bushes.

Another point which deserves discussion is the large percentage of bent seedlings which are found in many nurseries. It is unnecessary to point out to a practical planter that a bent seedling is not likely to produce as good a bush as a straight one. It is well to prevent the bending of the seedlings if it be possible to do so economically.

Some time ago the scientists engaged in the investigation of tea in Java paid some attention to this question and the results of their observations were published in a bulletin.

The seed of the tea plant is provided with a hard shell which splits on germination. The two cotyledons—the seed lobes, in which are stored the products on which the young plant feeds—open out so as not to hinder the development of the root and shoot. The shell splits along the line between the cotyledons commencing at the eye and following the seed lobes so that the seed separates almost symmetrically. The rootlet which develops first, is near the eye, and arranged in such a manner that it grows straight out through the eye. As the root grows directly downwards it would be logical to suppose that the most suitable position of the seed at the time of germination would be with the eye downwards.

This supposition was borne out by the Java experiments. Seed was planted in three ways :—

- (1) with the eye above :
- (2) with the eye at the side :
- (3) with the eye beneath :

With the eye above or on one side the springing apart of the seed lobes takes place irregularly, and the rootlet, which is induced to grow downwards by geotropic stimulus, is sometimes hindered by the seed lobe or the shell, and may be bent on itself two or three times before it commences to grow straight down. Sometimes the root grows between the shell and the seed lobe, and grows round and round until it finds an opening. It is readily understood that the percentages of bent roots is high under these circumstances.

With the eye below the root commences to grow downwards at once and the cotyledons spring apart satisfactorily giving full play to the developing shoot, and the percentage of bent seedlings is negligible in this case.

It may be argued that, under the conditions which obtain on the average tea estate, it is impossible to ensure the planting of the seeds with the eye downwards. It was however found that it could be done as a practical measure in Java, and there is no reason, theoretical or practical, to suppose that it cannot be done in North-East India. The common practice at present is to germinate the seed in pits before planting it into nursery beds. This method is not very satisfactory from the point of view of bending, as the seed lies in all directions in the pit, and unless it be planted out just as soon as the rootlet appears outside the shell the bending will take place. As the seeds do not all germinate at the same time some of the roots will be bent before the bulk of the seed is ready for planting out.

Fortunately there are few diseases which seriously affect young tea plants which are due to vegetable parasites. The most common are Red Rust and Die-back. These diseases are to be found on all nurseries after periods of bad weather. Red Rust is too well known to need description, but die-back, though just as prevalent, often escapes notice. The leaves become spotted with large brown patches and the ends of the branches die back, just as with Red Rust, but an examination of the dead portion shows no signs of Red Rust fructifications. It is however covered with black dots. These mark the fructifications of a species of *Gleosporium*.

So far it has not been thought advisable to give this fungu a specific name, as it is almost certainly a stage of another fungu. Culture—experiments in our laboratory point to the conclusions that it is the same fungu which causes the ripe rot of many fruits.

The remedy lies in cutting away the diseased shoots to clean healthy wood and spraying with a fungicidal mixture. It would be quite a good thing, to spray all nurseries twice, once in March and again in May, with a fungicide. Lime sulphur solution is suggested as very suitable. This would not cost very much and would save the plants from a good deal of damage. A species of *Rosellinia* kills a considerable number of plants in nurseries. It attacks the roots, and the seedlings die in patches. It is easily checked by watering the soil round the dead and dying seedlings with lime water and removing the dead ones.

Summary of suggestions:—

1. Special care should be taken on sandy soils, by shading or mulching to prevent the sun from burning the collars of the plants.
2. Seed should be planted with the eye downwards.
3. Two applications of a fungicidal spray fluid should be made to nurseries, one about March and another in May. "Quarterly Journal of the Scientific Department of the Indian Tea Association, Part III, 1916.

COFFEE.**The Coffee Trade.**

The chief feature of the coffee trade in the United Kingdom during the past year has been the remarkable increase in the imports from Brazil, these having more than doubled compared with the quantities imported in 1915. This increase was due almost entirely to the entrepôt trade, England having become the market for coffee formerly shipped direct to Havre and Hamburg, and having also sent large consignments to the Scandinavian countries until the prohibitions of exports and the increased severity of the blockade of Germany put an end to much of this business. The United Kingdom's total imports of coffee in 1916, including roasted or ground, amounted to 1,647,204 cwts., of which only 273,945 cwts. were entered for home consumption. For 1915 the statistics were 1,464,573 cwts. imported, and 305,885 cwts. retained for home consumption, showing a decline of 31,940 cwts. in home consumption and an increase of 182,631 cwts. in the total imports. The total value was less in 1916—*viz.*, £4,756,401 against £4,934,530 in 1915. The following table shows the leading countries of origin:—

IMPORTS INTO THE UNITED KINGDOM.

From	1915.		1916.	
	Cwts.	£.	Cwts.	£.
Mexico	19,167	72,856	3,696	14,364
Central America	370,765	1,399,044	215,422	728,272
Colombia	121,861	463,596	6,993	26,606
Brazil	590,923	1,703,385	1,199,998	3,212,249
Other Foreign Countries	208,935	712,718	118,989	383,566
British India	73,655	296,235	43,637	177,076
British W. I. Islands	33,723	2123,274	9,773	40,710
Other British Possessions	45,524	163,422	48,696	173,558
	1,464,573	£4,934,530	1,647,204	£4,756,401

Values of the principal varieties have all appreciated. The year began with a steady market for Santos at 40s. 6d. cash and May delivery 40s. 3d., c. and f, terms for superior Santos being about 47s. 6d. Crop estimates showing a falling off, prices remained firm, these estimates for 1916-17 being 13,770,000 bags as against 14,675,000 bags in the previous year. Prices continued to advance on smaller imports, the rise in the Brazilian exchange and on the general statistical position. There was also a good inquiry from abroad, reported in some quarters to be for after the War accounts. In May Santos for cash rose to 51s. 6d. Export restrictions then began to effect the market, and the heavy increase in stock led to a sharp fall in prices. Subsequently the market became steady again, and during the last part of the year no very marked change occurred. The 1916-17 Brazilian season opened with estimates of 10,250,000 bags for Santos or 13,800,000 bags for the entire Brazilian crop, and early in July the cash quotation was 46s. The Rio 1915-16 crop amounted to about 3,250,000 bags, and the Santos to about 11,750,000. For 1916-17 the estimates are, Rio 2,500,000 bags and Santos as already stated, a decline of 2,250,000 bags. The conditions for the 1917-18 crop are reported to be favourable. The chief buyer of the Brazilian crop has, as heretofore, been France. There was a brisk market

early in the year on the spot and for export. Spot prices soon advanced, touching a rise of about 9s. in East India middling to 75s. and 5s. in Costa Rica, good middling, to 75s. Export orders have, during the past few months, fallen off as the blockade became more stringent, but the effect was mitigated by improved home demand which maintained prices. A noteworthy point is that lower grades have appreciated more in demand than the better grades, and this may be attributed chiefly to the effect of the higher customs duties. The market remains firm. In January Washed Dumont was readily sold at 3s. to 4s. advance, and May delivery sold 51s. 3d. to 52s. The principal quotations for 1916 were:—

	January.	December.
East India, middling	66s.	76s.
Guatemala, good to fine	58s.—63s.	70s.—75s.
Santos, superior	49s.—50s.	56s.
Mocha, long berry	78s.	87s.
Colombian	46s.—70s.	54s.—75s.
E. I. Superior	86s.—90s.	90s.—95s.
Nyasaland	56s.—64s.	64s.—75s.

Stocks in Bond: 765,000 cwts. December 31, 1915; 1,375,000 cwts. December 31, 1916.

On January 1st, 1917, a new insolvency law, applicable to the whole of the Union of South Africa, came into force. The provisions of the Act are very stringent as compared with those of the acts at present in force in the different provinces of the Union, and must effect a great change in trading in general in South Africa, and tend very largely to the protection of merchants who supply small traders with goods on credit, as well as to the restriction of reckless trading on every hand.

CHINA'S import trade in paper is in a healthy condition. It is improbable that the domestic manufacture of paper along modern lines will be greatly extended in the near future, and this means that foreign paper will be required to supply an increasing demand. The changes within the country during recent years have vastly increased the number and circulation of native newspapers, and the output of publishing houses for school and other books.

WINE FOR FRENCH SOLDIERS.

(FROM THE JOURNAL OF THE ROYAL SOCIETY OF ARTS).

According to the official returns in 1915 the French Government requisitioned and purchased 4,685,000 hectolitres, or more than six hundred and eighteen million large bottles of claret or red wine, for the use of its armies. Each officer and man daily receives half a litre of wine, and the actual number of bottles requisitioned in the year mentioned was 927,630,000 half litres. During the following twelve months of 1916, when the forces engaged in the different theatres of operation had been largely increased, the total quantity of wine requisitioned by the Government of the Republic is estimated at 6,000,000 hectolitres, representing one thousand one hundred and eighty-eight million half litres (792,000,000 large bottles). — *The Produce Markets' Review*,

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. NO. 16.]

APRIL 21, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Chairman writes: "It is with deep regret that I have read of the death of Flight Lieut. Robinson, V. C. and if this is confirmed I would ask you to convey to his bereaved parents and family my sincerest condolences in the great loss they and the nation have sustained by the death of their brave and brilliant son. Long will his name be honoured by the Planters of Southern India."

The Director, Labour Department, asks us to make public the following announcements "Subscribers are informed that the Bellary Division will be abolished from 31st July, 1917. Arrangements will be made for the supervision of the agencies in the Division which it is necessary to maintain for the benefit of those subscribers whose interests demand their continuance. *Act XIII of 1859*; Few Magistrates are aware of the following:

"*Wier's High Court Ruling. Criminal Revision Cases Nos. 715 to 718 of 1892.*—The fact that the time for which the contract between parties was made has expired is no reason why an order should not be made for the repayment of the money, and the fact that a suit for the recovery of the money is barred by limitation is no ground for refusing to give effect to the provisions of *Act XIII of 1859*.

"In cases in which there has been great or unexplained delay on the part of the complainant, the Magistrate can use his discretion as to the amount which he may direct to be repaid."

This issue contains the reports of two Meetings of the Anamalai Planters' Association, and one from the South Mysore Planters' Association; our weekly article on Markets, Prices and Statistics, and a letter from Ichabod, on the proposed Shimoga-Bhatkal Railway.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	59,552	0	2
Mr. H. L. Pinches	40	0	0
Mrs. Alex. A. Apcar	100	0	0
Mr. J. J. Murphy	100	0	0
Total Rs.	59,792	0	2

DISTRICT PLANTERS' ASSOCIATIONS

Anamallay Planters' Association.

Minutes of the 12th Annual General Meeting of the Anamallai Planters' Association held at the Club on 24th January, 1917.

PRESENT—Messrs. J. Hatton Robinson, (Chairman), G. A. Marsh, C. R. T. Congreve, D. Cooper, J. Carless, S. C. Biddell, E. W. Simcock, S. Sladden, J. H. I. Jones, J. A. R. Lloyd, A. C. Cotton, J. E. Sampson, J. E. Scott, C. K. Pittock and A. A. Robb, (Honorary Secretary).

The Anglo-American Direct Tea Trading Co., was represented by proxy.

Minutes of last Extraordinary General Meeting were read and confirmed.

The Secretary's report was read and accepted and was as follows:—

" Mr. Chairman and Gentlemen,—

I beg to lay before you my Annual Report for the past year.

MEMBERSHIP.—We have now 21 Estates on the register or three Estates more than last year and 26 subscribing members.

MEETING.—There have been seven general and five Committee meetings held during the past year and these were well attended.

FINANCE.—The financial position of the Association is very satisfactory. At the commencement of the year we had Rs.1,316-6-11 in hand, and we close the year with a credit balance of Rs.3,545-10-5 after all bills have been paid.

PLANTERS' BENEVOLENT FUND.—This very deserving fund was subscribed to by every member of the Association.

ACREAGE.—

					Acres.
Tea	...	...	...	...	6912
Coffee	...	...	...	...	2256
Cardamoms	...	...	...	...	2305
Rubber	...	...	...	...	1115
Rubber and Coffee	...	...	...	...	421
Cinchona	...	...	...	...	290
Other Produce	...	...	...	...	18
Total...					13317

The accounts are now before you and if found correct I would ask you to pass them and accept my resignation.

I thank you, Sir, for the great assistance you have rendered me in carrying out my duties, and you, gentlemen, for the prompt manner in which you replied to my letters, and sent in your subscriptions."

The Chairman's address, which was as follows, was also accepted:—

"Gentlemen:—You have heard the Honorary Secretary's report, which I am sure you consider a most satisfactory one from every point of view.

Thanks to Mr. Robb's energies the Association has got through a very considerable amount of good during the past year, and it is now in a strong financial position and has its correspondence and accounts all up to date.

It is customary for your Chairman at your Annual General Meetings to take a retrospective view of the year's work but, this year very little, I am thankful to say, remains for me to do as most of the matters that so deeply interest us were, with the approval of your Committee, put by me before H. E. The Governor of Madras on the occasion when His Excellency honoured us by visiting this District last October, and there would now be no object in recapitulating what I then said.

From the patient hearing that His Excellency gave us, and from his sympathetic reply, I feel sure that, in a very short time, his visit will prove to be of the greatest value to the prosperity of the District, and before I sit down I should like to place on record the pleasure we all felt at His Excellency, Lord Pentland, having interested himself so much in our affairs as to pay us a personal visit.

MEDICAL.—Whilst our private medical arrangements for the treatment of our labour are satisfactory, with the War calling for so many medical men we cannot, at the present moment, expect Government to give us much assistance, but we should nevertheless immediately draw up a programme showing to what extent we are willing to subscribe annually for an efficient Medical establishment under our own control.

I have recently received some correspondence, which has passed between the Surgeon-General and the Planting Member, on this subject which I intend putting before you to-day.

ROADS AND COMMUNICATIONS.—If we *thought* we required an alternative outlet four years ago, we are quite *sure* of it to-day. It is questionable whether the ghaut road will be able to cope with our traffic in another few years, and it is therefore of vital importance to the development of the district that it should have other means of communication with the low country.

At present we have the greatest hope that the Cochin State Tramway will be extended into the District, but should this scheme, for any reason not be fulfilled immediate steps will have to be taken to devise an alternative scheme to cope with the increasing traffic of the District.

LABOUR.—This has now become a malady from which most Planting Community suffer to a certain degree, in one form or another, and its dangers have, for some years past, had the attention of experts who periodically give their views and advise us how to effect a remedy!

The remedy, gentlemen, is still an unknown quantity, and it remains with ourselves, as I am afraid it always will, to worry the matter out and devise a means of keeping the danger in hand.

In resigning the Chairmanship I wish to thank you all for the great consideration you have always shown me which had led to our deliberations being, if not, "Very humorous" as the writer in the *Madras Mail Supplement* termed them, of a very pleasant nature.

I have had the great assistance from our Honorary Secretary, Mr. Robb, whom I have to thank for keeping the Association's matters so up to date."

A hearty vote of thanks proposed by Mr. Marsh and seconded by Mr. Congreve was tendered to both Chairman and Honorary Secretary.

WESTERN OUTLET.—Messrs. Robinson, Marsh, Simcock, and Congreve explained what passed at the interview with the Dewan of Cochin at the Meeting held at Coimbatore on 20th January. The following resolution was proposed by Mr. Congreve and seconded by Mr. Pittock:—"That a Sub-Committee be appointed to go into all possible means of exit and ingress to this District other than the proposed western outlet and that this Committee be composed of Messrs. Robinson, Marsh, Scott, and Behr and to report results of their deliberations to the Association."

MEDICAL.—Mr. Congreve addressed the meeting with regard to the excessive charges made by the Sub-Assistant Surgeon and gave instances where the fees demanded by the Sub-Assistant Surgeon for attending coolies were absurd and ridiculous.

The following resolution proposed by Mr. Congreve and seconded by Mr. Scott was passed with two dissenting.

"That this Association views with considerable mistrust the ever increasing charges levied by the resident Government Medical Officer for visiting Estates, and that the Honorary Secretary be instructed to write to the President, District Board and to the District Medical and Sanitary Officer, drawing their attention to these charges and informing him that unless some fair standard of charges for such visiting can be fixed on the lines of those agreed upon by the Association in 1909-10 when the subscription was promised, the Association will itself be obliged to withdraw from the agreement altogether."

Mr. Simcock pointed out that Government had obliged us by placing a Sub-Assistant Surgeon in the District and wished this to be placed on record by the Association. The Chairman next read the correspondence between the Hon'ble Mr. Barber and the Surgeon-General in reference to the scheme of placing the District Medical arrangement on a better footing by placing a European Doctor in charge. The meeting went into committee and discussed the matter and on returning to open meeting the following resolution proposed by Mr. Simcock and seconded by Mr. Congreve was passed unanimously:—

"That a Sub-Committee of Messrs. Robinson, Behr, and Simcock be formed to discuss the possibilities of forming a district medical fund, on the lines of those of Wynaad and South Coorg."

ROADS.—The following resolution proposed by Mr. Congreve and seconded by Mr. Carless was passed unanimously:—"That this Association draws the attention of the Chief Engineer to the continued disgraceful state of the Anamalai Road; and points out that although in September last he informed it that the road would improve the fact is that with the exception of the first 7½ miles, the road will shortly be impassable to even to cart traffic unless immediate steps are taken to put it into proper state of repair; and the Association would also be obliged to the Chief Engineer if he would kindly inform it whether any arrangements have been made to provide for a special grant to meet the necessary cost of putting the roads into proper repair as the present grant is totally inadequate."

The meeting noted, with regret, that little or nothing had been done to improve the roads since the visit of H. E. The Governor.

IVERPADI COURT.—Read and recorded letter from District Magistrate. The Honorary Secretary was requested to write and enquire from what date a warrant comes into force, and if the process fees are liable from the date of issue, or when?

MINOR FOREST PRODUCE.—The accounts were explained by Mr. Congreve (Honorary Secretary) and it was recorded that the capital of the Association at date, was Rs. 730.

DISTRICT RATES.—These were discussed and agreed upon.

LABOUR RULES.—The following resolution proposed by Mr. Simcock and seconded by Mr. Marsh was passed with two dissenting:—"That no member of the Anamalai Planters' Association shall advance any Check Roll or Contract Maistry without first referring to the Labour Department of the U. P. A. S. I, unless the maistry holds a recently dated discharge note, and any member taking a maistry belonging to another Estate in the District without having first communicated with the Labour Department is liable for the maistry's indebtedness to *his last employer*.

It was agreed that the above resolution does not come into force until an agreement is entered into with the Labour Department.

CORRESPONDENCE.—Was read.

FINANCE.—The following resolution proposed by Mr. Congreve and seconded by Mr. Marsh was carried unanimously:—"That the present subscription to A. P. A. of annas five, per acre, be reduced to annas four, per acre, to include everything."

OFFICE BEARERS.—Mr. Robinson re-elected Chairman, and Mr. Robb, Honorary Secretary. Mr. G. A. Marsh was elected Vice-Chairman.

COMMITTEE.—Messrs. E. W. Simcock, C. R. T. Congreve, J. E. Scott, C. K. Pittock, and B. M. Behr.

Mr. Robinson thanked the meeting for the honour they had done him in re-electing him as their Chairman for the coming year and said that:—There appeared to be troublous times ahead, but, with the help and consideration that he always had from the members he felt that he could further rely on their assistance should such be necessary.

Messrs. Robb and Marsh briefly returned thanks, and with a vote of thanks to the Chair the meeting terminated.

(Signed) J. HATTON ROBINSON,

Chairman.

(„) A. A. ROBB,

Honorary Secretary.

South Mysore Planters' Association.

*Minutes of the 53rd Annual General Meeting held at the
Mudigeri Travellers' Bungalow, on March 31st, 1917.*

PRESENT:—Messrs. C. Lake (President), C. J. Hayward (Vice-President), T. Anderson, J. G. H. Crawford, C. H. Godfrey, F. M. Hamilton, P. Hunt, E. V. Hunt, E. W. Rutherford, W. F. Scholfield, M. J. Woodbridge. **Visitors:**—Messrs. L. P. Kent, Campbell Hunt, W. Reilly.

The unavoidable absence of the Honorary Secretary Mr. St. John Hunt through illness was much regretted and Mr. C. J. Hayward kindly consented to act for him during the Meeting.

The President in the Chair.

Before proceeding to the business before us I should like on behalf of this Association to express our sympathy and condolence with the relations of the late Captain E. C. Foster who was for many years a member of this Association and by whose death many of us have lost a much valued friend.
—*Carried all standing.*

The minutes of the last meeting were passed.

THE HONORARY SECRETARY'S REPORT was then read by Mr. C. J. Hayward.

HONORARY SECRETARY'S REPORT.

Mr. President, Vice-President and Gentlemen:—During the year under review, three quarterly meetings were held, all of which were well attended.

At the close of last season there were 6892 acres subscribing. Of this 350 acres have been taken off owing to one member having sold his Estate and another resigning. One new member has joined adding 130 acres, therefore the total subscribing to the Association at date is 6672 acres.

PERSONAL MEMBERS.—I much regret to have to record the death of one of these, one new member has joined and our total now remains at two.

PLANTERS' BENEVOLENT FUND.—At the close of last season there were 21 members. Two have left the District and subscription from one is outstanding. Rs.180 has been forwarded to the Honorary Secretary of this Fund.

SUBSCRIPTIONS.—A four anna rebate was decided at the last Annual General Meeting, and Subscriptions were collected on this basis, excepting on 130 acres for reasons stated at that meeting—all subscriptions have been collected.

ACCOUNTS.—These are laid on the table for inspection and audit.

WORK FOR THE YEAR.—The principal matters were:—

Coffee Experimental Station.

Assistant Scientific Officer.

Land Tenure.

Roads and Communications.

Besides other minor matters in connection with the Association.

COFFEE EXPERIMENTAL STATION.—A delegate was sent to Coorg and was shown round the proposed site by the Honorary Secretary of the Coorg Planters' Association. The site was agreed to but the furtherance of this matter has been abandoned by Government *pro tem*.

ASSISTANT SCIENTIFIC OFFICER.—Mr. Frattini's agreement terminates in April and this matter will come up for final disposal at this meeting.

TENURE OF LAND.—Final orders on this important matter have been received from the Government of Mysore. This subject will be brought up at the Annual Meeting of the U. P. A. S. I.

LABOUR CONTROL COMMITTEE.—A delegate was sent to Ooty in October and the answers to his representations will be read at this Meeting.

ROADS AND COMMUNICATIONS.—An improvement has been noted and it is to be hoped that it will continue.

I have nothing in particular further to add and have to thank you for the honor in having elected me as your Honorary Secretary and now place my resignation in your hands.

PRESIDENT'S ADDRESS.

GENTLEMEN,—The Honorary Secretary's Report leaves little for me to say as regards the work of the Association.

The past season has been a good one and crops realised have in many cases been above estimates. Leaf Disease which was so prevalent during the preceding two years was considerably less in evidence in this District during the last rainy season in spite of a prolonged South West Monsoon. The result of this has been an increased vigour in coffee generally a great reduction in dieback and withered beans and a promise on many estates of another good crop to follow—all this points to the fact that if some practicable method of preventing Leaf Disease, by spraying or otherwise, could be found many of our difficulties would be solved.

Our Industry already hard hit by two bad seasons has recently received another heavy blow in the Prohibition of Import of Coffee into the United Kingdom. This order could not have come at a more unfortunate time for the South Indian Coffee Planter who has just harvested good crops and expected by the sale of them to make good his losses during the past two years and have sufficient to carry on with.

We are, as you know, endeavouring to get the Home Government to delay for a short period the enforcement of this prohibition order—Without wishing in any way to hamper the policy of the British Government at this critical time we have taken these steps because we feel that when all the difficulties of our position are fully realised at home, Government will see their way to relax a little, this order which, if enforced at once, seems likely to bring disaster to the oldest Planting Industry in S. India.

In this connection the thanks of our whole community are due to the very energetic way in which the Chairman of the U. P. A. S. I. and the Hon'ble Mr. Barber have taken the matter up. They have been and are working very hard in the interests of Coffee Planters to relieve the situation.

We are also much indebted to The Mysore Chamber of Commerce who have very kindly come to our aid and are doing their best to represent our cause in influential quarters at Home.

With regard to the Scientific Department being taken over by the Madras Government things are at a standstill and are likely to remain so, I fear, until the end of the War. Mr. Frattini's term of agreement having come to an end we have lost his services as Assistant Scientific Officer in Mysore. He is to be congratulated in having obtained a commission in the I. A. R. O. A scheme is on foot to carry on the useful work commenced by him under the Agricultural Department of Mysore and this comes before you to-day for discussion.

The Railway Policy of the Mysore Government still continues to be disappointing to us. From the point of view of an outlet to the Coast for the produce of Mysore the Shimoga Bhatkul Scheme has little to recommend it. The perusal of Mr. Richards recently published Report on West Coast Railway projects leaves no doubt whatever that he considers the Hassan Mangalore line to be the most suitable to the interests of this State and the surrounding territories.

I feel I cannot sit down without alluding to this terrible War which still continues to devastate Europe. It seems likely that it will reach its decisive phases during the coming summer and as to the result there can now be no shadow of doubt. The determination of the Allies to win complete Victory over our enemies and to smash for ever Prussian Military despotism was never more apparent than at present and we confidently look forward to a Victorious and lasting peace in the near future.

In conclusion, gentlemen, I thank you for the honor you have done me in making me your President during the past year. I also wish to thank the Vice-President and Honorary Secretary for the very able assistance they have given me in carrying on the affairs of the Association and I now place my resignation in your hands.

(Signed) C. LAKE,

President, S. M. P. A.

31-3-1917.

Accounts 1916-1917.

ASSETS.

				Rs.	A.	P.
To Reserve Fund	...	...	...	1,061	0	0
„ Interest on Reserve	...	...	...	47	12	0
„ Subscription 6542 acres @ 4	...	...	...	1,635	8	0
„ „ 130 „ @ 8	...	...	...	65	0	0
„ „ due 1915-1916	...	...	...	0	8	0
„ 3 Personal Members	...	...	...	30	0	0
„ Cash Balance in Bank ending 1915-1916	...	...	...	2,129	12	1
„ Cash in hand ending 1915-1916	...	...	...	217	11	7
„ Interest by Bank	...	...	...	27	13	0
„ Planters' Benevolent Fund	...	Rs. 190	0 0			
„ „ Less outstanding	...	„ 10	0 0			
				180	0	0
Total Rs...				5,395	0	8

LIABILITIES.

				Rs.	A.	P.
By Reserve falling due April 8th, 1917	...	...	...	1,061	0	0
„ Interest on Reserve	...	...	...	47	12	0
„ Subscription to U. P. A. on 6672 acres	...	...	...	834	0	0
„ Assistant Scientific Officer 8th and 9th 1/4 yearly instalment..	...	...	...	1,950	0	0
„ Honorary Secretary, Benevolent Fund	...	...	...	180	0	0
„ Delegate to U. P. A. Meeting	...	...	...	100	0	0
„ Book Proceedings, 30 Copies and Postage	...	...	...	32	0	0
„ Bank's Postage	...	...	...	0	3	0
„ Stationery Rs.18, Postage Rs.26-2-0	...	...	...	44	2	0
„ Printing	...	...	...	28	9	0
„ T. B. Fees	...	...	...	3	0	0
„ Clerk	...	...	...	60	0	0
„ Miss Dawson's Estate	...	...	...	3	0	0
„ Cash in Bank	...	...	...	971	6	1
„ „ in hand	...	...	...	80	0	7
Total Rs...				5,395	0	8

ST. JOHN HUNT.

Budget 1917-1918.**ASSETS.**

				Rs.	A.	P.
Reserve Fund	...	...	...	1,061	0	0
Interest on Reserve	...	...	...	47	12	0
Cash balance at Bank	...	...	Rs.971-6-1			
„ In hand	...	...	Rs. 80-0-7			
				1,051	6	8
Subscription on 6672 acres As. 4 per acre	...	...	...	1,668	0	0
2 Personal Members	...	...	...	20	0	0
			Total Rs...	3,848	2	8

LIABILITIES.

				Rs.	A.	P.
Reserve Fund plus Interest	...	...	...	1,108	12	0
Subscription U. P. A. 6672 acres	...	...	...	834	0	0
Delegate to U. P. A. Meeting	...	...	...	100	0	0
Sanderson Ward Store	...	...	...	250	0	0
Assistant Scientific Officer Fund	...	...	...	975	0	0
Hassan Industrial and Agricultural Museum donation	...	...	...	50	0	0
General Expenditure and Contingencies	...	...	...	200	0	0
			Total Rs...	3,517	12	0
			Estimated Surplus...	330	6	8
			Total Rs...	3,848	2	8

ACCOUNTS.—It was noted with regret that Mr. Park has not yet fulfilled his obligation to the Assistant Scientific Officers Fund. Messrs. F. M. Hamilton and P. Hunt were asked to audit the accounts pending which the balance sheet was passed.

SUBSCRIPTION FOR ENSUING YEAR.—It was unanimously agreed to continue the rebate of 4 annas per acre during the coming year.

ASSISTANT SCIENTIFIC OFFICER.—It was resolved that this Association agrees to leave the disposal of the Chemicals, Laboratory plant and Horse to the Council of Mysore Association to be sold by them to the best advantage.

MYSORE EXPERIMENTAL FARM IN THE MULNAAD.—The Scheme put forward by the Mysore Government was fully discussed and the establishment of the proposed Farm in a locality having a rainfall of from 80 to 100 inches per annum was considered to be more suitable to the study of coffee diseases and pests than one having a rainfall of from 100 to 120 inches.

It was proposed by Mr. C. J. Hayward and seconded by Mr. M. J. Woodbridge. "That this Association is unanimously against any cess being levied to carry out the proposed Experimental Farm in the Mulnaad, but is prepared to subscribe towards it if the Indian Planters agree to contribute also."—*Carried unanimously.*

HASSAN-MANGALORE RAILWAY.—On this subject Mr. C. J. Hayward spoke as follows:—

Arsikere-Mangalore Railway versus Shimoga-Bhatkal Scheme. I have asked for this matter to be put on the agenda to-day owing to the activity recently shown by the Mysore Durbar in apparently trying to push the Shimoga and Bhatkal Scheme through with the British Government.

In condemnation of the above proposed Railway scheme I cannot do better than copy a few words from Mr. Richard's report on the West Coast Railway Projects. It should be clearly understood "that no line in the Shimoga Group will do much good to the Bombay Presidency or the Madras Presidency or Coorg" this remark comes from the late Engineer-in-Chief, Mysore and West Coast Railway Survey and I think a study of the map would convince one that Mr Richards' would have not been far wrong if he had added—or to the greater part of Mysore State. In connection with this matter there is one other point I would like to bring to your notice, in 1915 I attended the annual Meeting of the U. P. A. S. I. as representative of this Association, I put a resolution before the Meeting on the matter of the contemplated abandonment of the Arsikere-Mangalore Railway scheme in favour of the Shimoga-Bhatkal scheme, at the request of the late British Resident, the Hon'ble Sir Hugh Daly. I withdrew the resolution, I withdrew it because I was assured that we Planters would be fully consulted over the matter of proposed railways and to prove this I quote the words of Sir Hugh Daly.

"If the result is to show that there is something in the project the Durbar will then approach them officially. (referring to the Bombay Government) and ask for their views. I can safely promise that if the time ever comes for approaching the Bombay Government, the Durbar will at the same time approach the Planters, and ask them for their views, I am prepared to promise that now."

Have the Bombay Government been approached? I believe so.

At the same time were we Planters asked our views? I believe not. From correspondence which has passed between the U. P. A. S. I. and this Association it appears to me that instead of consulting our views on the subject the Mysore Durbar used or attempted to use as evidence that we Planters were in favour of the Shimoga-Bhatkal scheme, an addendum to a Resolution concerning another railway scheme altogether *viz.* the Shoranur-Wynaad Railway scheme, this hardly appears to me to be—"Playing the Game."

The following resolution was then proposed by Mr. F. M. Hamilton and seconded by Mr. J. G. H. Crawford: "That this Association views with alarm the persistent pushing of the Shimoga-Bhatkal Railway scheme in the face of the adverse report made by Mr. Richards the late Engineer-in-Chief of Mysore and W. Coast Railway Survey. It is of opinion that the Hassan-Mangalore line is the only one that will benefit the bulk of the planted area in Mysore and is one that will be of use to a larger part of Mysore State and also to the adjoining territory."—*Carried.*

DISTRICT RAILWAYS.—This important matter was fully discussed and the following resolution proposed by Mr. E. W. Rutherford and seconded by Mr. C. J. Hayward was put to the Meeting and carried.

"That this Association is strongly opposed to the projected Hassan, Belur, Chickmagalur Kadur District Railway as being of no benefit to the Mulnaad and is of opinion that a line running from Hassan through Saklasapur Mudigere Chickmagalur to Kadur would be of benefit to a far larger area and would be a splendid feeder line to the projected Hassan-Mangalore Railway."

ROADS.—It was resolved that the attention of the Mysore Government be again drawn to the danger of the crossing of the overflow between the 67th and 68th milestones on the Kunigal Chenaraipatna road.

It was further proposed by Mr. Godfrey and seconded by Mr. L. P. Kent. "That once again this Association would draw the attention of Government to the deplorable state of the roads in the Hassan and Kadur Districts as a whole and in the Mulnaad parts of the same in particular. For at least 40 years they have been in a state which is the severest handicap to all existing and projected industries in the District and the present Government policy of pushing Railways without any serious attempt to maintain in good order the roads which are essential as feeders to the same shows a deplorable want of foresight."—*Carried.*

AGRICULTURAL AND INDUSTRIAL MUSEUM IN HASSAN.—The President explained to the meeting the proposal to establish a Museum in Hassan and further read a letter addressed to him on the subject by Mr. S. Venkata-saiya, Hassan.

It was decided to give a donation of Rs. 50 towards the Establishment of the Museum.

CORRESPONDENCE.—Read letter from the Deputy Commissioner, Hassan, requesting the election of a member of this Association to the Hassan District Conference Committee.

Mr. E. W. Rutherford was elected.

PROHIBITION OF IMPORT OF COFFEE INTO UNITED KINGDOM.—The following resolution was put from the chair. "This Association wish to record our hearty thanks to the executive of the U. P. A. S. I., the Mysore Chamber of Commerce and to those at home who are helping to put the position of the Coffee Industry in Southern India before the Home Government. That it is of opinion that the immediate enforcement of the Prohibition of Importation of Coffee into the United Kingdom will have disastrous effects on the industry and those depending on it."—*Carried.*

NEW MEMBER.—Mr. L. P. Kent was unanimously elected a member

ELECTION OF EXECUTIVE.—The following gentlemen were re-elected for the coming year :—

President	...	C. Lake.
Vice-President	...	C. J. Hayward.
Honorary Secretary	...	St. John Hunt.

The Meeting closed with a vote of thanks to the Chair.

(Signed) C. LAKE,
President.

(„) St. JOHN HUNT,
Honorary Secretary.

Anamallay Planters' Association.

*Minutes of an Extraordinary General Meeting held at the Club
on 9th April, 1917.*

PRESENT :—Messrs. J. Hatton Robinson (Chairman) B. M. Behr, S. C. Biddell, J. D. Brewer, J. Carless, A. C. Cotton, D. Cooper, J. H. Ireland Jones, C. Fraser, J. A. R. Lloyd, G. A. Marsh, J. E. Sampson, J. E. Scott, C. R. T. Congreve (Acting Honorary Secretary) and E. M. Moss, visitor.

The minutes of the Annual General Meeting were read and confirmed.

The Chairman informed the meeting that Mr. Robb had resigned the Honorary Secretaryship on leaving the district, and that Mr. Congreve had agreed to act.

Election of Honorary Secretary. Mr. Congreve was elected.

The following new members were elected to the Association :—Messrs. C. Fraser, and J. D. Brewer.

The Chairman informed the meeting that he had sent a telegram of congratulation to the Head Assistant Collector, Mr. Tottenham, who was being married on the 9th, in Coimbatore. The meeting approved.

PROPOSAL TO SHORTEN MEETINGS.—The Chairman and Mr. Fraser spoke on this subject, and suggested several ways by which meetings might be shortened. The Honorary Secretary was requested to circulate these suggestions, and it was agreed to embody them in the procedure of all future meetings.

LABOUR.—The Honorary Secretary read out all the local rules which had been in force for the last few years, and suggested that these should be printed and sent to every member of the association.—*Passed unanimously.*

The following amendment to the local labour rule passed at the annual general meeting proposed by Mr. Cotton, and seconded by the Honorary Secretary, was passed unanimously.

“ The members of this association agree not to give a cash advance to
“ or make an agreement with any applicant for work without reference to
“ the Labour Department, and in the event of an applicant being reported

"by the Labour Department to be already indebted to an estate in the district, it shall be incumbent on the estate to which he has applied to refer to the estate to which he is indebted, and either to hand him back, or to take over his debt before employing him further."

It was agreed that this rule come into force immediately.

ROADS.—Read Chief Engineers letter No. 1617-C dated March 5th. The association were pleased to note that there were ample funds for the upkeep of the roads in the district. They regretted they were unable to supply labour as suggested, as they were hardly able to get sufficient for their own needs. Certain gentlemen however said they were prepared to help, by taking over certain sections of the road from the D. P. W., and the Honorary Secretary was requested to write to the Chief Engineer asking if this could be done.

The Honorary Secretary read letter to the President District Board, pointing out that the main road from Pollachi to Vananthorai was badly in need of repairs, and requesting him to take the necessary steps to have the work done before the break of the monsoon.

COFFEE SHOP AT ATTYKUTTY.—Read letter from the Executive Engineer on this subject. After considerable discussion the Honorary Secretary was requested to write and say that the Association were of opinion that a coffee shop at Attykutti would serve no useful purpose, but that if it could be started higher up the ghat, say at, or near, the Government cooly lines near the 15th mile, or higher, it would be a very excellent thing.

Mr. Marsh wished his protest recorded against one being started at all.

ANAMALLAY TOWNSHIP.—Read Collectors letter giving names of applicants for building sites on the township. Messrs. Robinson, Marsh, Carless and Congreve were elected to form a sub-committee to go thoroughly into the matter of the applications, type of building necessary, site for bazaars, etc, and to communicate their opinions to the Collector.

U. P. A. S. I. ANNUAL GENERAL MEETING.—Read Secretary's letter. The meeting approved of the date mentioned.

FINANCE.—Proposed by Mr. Behr, seconded by Mr. Marsh, and passed unanimously that:—

"The rate of subscription to the Association should be the same as" "last year, and that the resolution to reduce it, passed at the last meeting" "be rescinded."

AUDIT OF ACCOUNTS.—Messrs. Scott, and Lloyd, who had kindly audited the accounts for the last year, made a statement showing the financial position. A hearty vote of thanks was proposed from the chair for the trouble they had taken, and was passed unanimously.

With a vote of thanks to the chair, the meeting terminated.

(Signed) J. HATTON, ROBINSON,

Chairman.

(„) C. R. T. CONGREVE,

Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.**Coffee.****Monthly Statistics to 28th February.**

	1917.	1916.
	tons.	tons.
EAST INDIA--		
Landed to 28th February	80	—
Delivered to 28th February	462	591
Stock on 28th February	385	738

COFFEE OF ALL KINDS--

Stock in U. K. on 28th February ...	37,650	30,200
Total European Imports to 28th February ...	38,655	70,300
Total European Deliveries to 28th February...	48,765	78,760
Total European Stock on 28th February ...	215,355	198,000
World's Visible Supply on 28th February ...	602,470*	547,115

*A decrease of 21,235 tons compared with a decrease of 40,530 tons last year.

Brazil receipts to 5th March :—

1917.	1916.	1915.	1914.
10,557,000	13,046,000	10,314,000	12,062,000

Offerings in auction have been :—

	28 Feb.— 6 March.	Since 1st Jan.	Last Year.
East India	304	304	—
Costa Rica	4,122	11,536	25,922
Other Milds	2,970	13,309	39,154
Brazil	4,204	40,754	11,059
Robusta	153	654	248
B. E. A.	104	2,227	5,300
Uganda	896	3,292	

Messrs. T. H. Allan & Co., in their Weekly Report dated 7th March state that one parcel of new East India ex "Clan Mackinnon" was offered on 6th March and realised extreme prices, viz :—

COORG.	No. 1.	No. 2.	No. 3.	PB.	T.	Avg.
Arbuthnots						
Yemmagooni ...	106/-	100/-	91/-	130/6	88/6	105/9

The demand generally was irregular, some fine lots fetched full prices, but others, especially Santos, were neglected. The high prices have brought out Coffees originally bought for export and buyers can probably now afford to wait a little.

No further information is available about the prohibition of import. A deputation from the Coffee Trade Association met the Controller of Restricted Imports on the afternoon of 7th March and later in the day the

Food Controller, but it is hardly likely that any decision will be come to immediately.

According to the *Mysoore Chamber of Commerce Weekly Report* dated 2nd April the local price of Coffee per maund of 26½ lbs. the ranges from Rs. 13/8 to Rs. 14 for Peaberry, Rs. 9/8 to Rs. 11 for Parchment, and Rs. 9 to Rs. 9 + for Native. Chickinagalur quotes per maund of 28 lbs. Peaberry Rs. 12 to Rs. 12/8, Native Rs. 7/14 to Rs. 8/8.

Tea.

Messrs, T. H. Allan and Co., in their Weekly Report dated 7th March state that at the auctions on 5th March prices showed a further advance of about ½d., but the sales advertised for 6th March were postponed owing to the Food Controller having issued an order that Grocers must be prepared to supply tea at 2/- per lb. which means that 75% of the supply must not fetch more than about 9d. in auction. The Tea Association have the matter in hand and something may be arranged about it.

The following prices were obtained for South Indian Teas at the London auctions of 5th March :—

—	B.O.P	O. P.	B. P.	Pek.	P. S.	P. F.	Fgs.	Dust.
TRAVANCORE.								
Letchmi ...	...	...	1/5½	...	...	1/5	...	...
Kadua Karnum...	...	...	1/4¾	1/4½	...	...	...	...
Chokanad ...	...	...	...	...	...	1/5¼	1/5¼	...
Poonmudi ...	1/5½	...	1/4¾	1/4½	...	...	...	...
Merchistou ...	1/4¾	1/4	...	1/3½	...	...	1/3	...
Glenmary ...	1/5½	...	...	1/4	...	1/5¼	...	...
WYNAAD.								
Kardoora ...	1/5½	...	1/5½	1/4	...	...	...	1/3¼
Arrapetta ...	1/5¾	1/5¼	1/5	1/4	...	...	...	1/3½
Auda Tode ...	1/5¼	1/4¾	...	1/4½	...	...	...	...
NILGIRIS.								
Prospect ...	1/6½	1/5¼	1/6	1/5¼	...	...	...	...
Daverashola ...	1/7¾	1/5½	1/5¾	1/5	...	...	...	...
Seaforth ...	1/5¾	1/4½	1/5	1/4½	...	...	...	...
ANAMALAIS.								
Paralai ...	1/5¼	1/5	...	1/4¾	...	...	...	...
Stanmore ...	1/5½	1/5¼	...	1/4¾	1/4	...	...	...

Spices.

PEPPER.—Local prices range from Rs. 12 to Rs. 12/8 per maund of 25 lbs.

CARDAMONS.—Local prices are Rs. 23 per maund of 25 lbs., Saklespur quoting Rs. 19 to Rs. 20 per maund.

(CORRESPONDENCE.**Planting in Mysore.**

THE EDITOR,

Planters' Chronicle.

Sir,—An impression is abroad—a very widespread impression—that the present Administration in Mysore is no friend of the planter, I should say the European planter. Whether it rests on a sure foundation or not I cannot say, but it is certain that the authorities do nothing to counteract it, and if, as is freely stated now-a-days, the Mysore Government are as anxious to discourage the participation of European capital in the industries of the State, as they appear to be to keep European officials out of their Government services, then it behoves planters to face the position and not shut their eyes to it. That it will be a bad day for the latter when the British officials are fully eliminated from the State services none can deny. With their numbers reduced as at present, a change has come over the scene which, I am told, is anything but acceptable to the planting community: and, after all, planters have done a good deal for Mysore in the past, so much indeed as to merit, in the opinion of many, the greatest consideration instead of what some describe as the cold shoulder. Be this as it may, there is no doubt that the two latest schemes of the Mysore Government, if persevered with, will prove inimical, if not fatal, to planting interests in the State. I refer (1) to the latest railway project—an extension from Shimoga to Bhatkal, and (2) the development of a pig iron industry on the Bababudins. The former scheme might prove of value as an outlet for timber and manganese ore, but it will be of little or no use to planters; and the latter may resign themselves to the fact that, if the Bhatkal project is persevered with, against the advice of the best Engineers who have reported on it, it sounds the knell of the Hassan-Mangalore scheme for which they have agitated for so long. A second line to the West Coast, if ever sanctioned, will cross the ghauts a good deal further south: whereas if one line only is decided on, there is no doubt that the Hassan-Mangalore line has claims that can with difficulty be passed on. The pig iron development scheme is reported to be of vast proportion. Ore is said to have been discovered, aye and measured up, at Kemmin Goondi on the Bababudins in millions of tons. The requisite fuel in the shape of thousands of tons of charcoal will be concentrated at the Works, which are to be located at Benkipur, I hear, by a net work of railways. As fair a prospect as any in the Province will be devastated; coffee planters will be ruined—it cannot well be otherwise—by the loss of labour entailed by the new project; and on the face of the beautiful hills where some of the best and most lucrative coffee estates in the land are situated we shall find written the name

ICHABOD.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 17.]

APRIL 28, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

MARKETS PRICES, AND STATISTICS.

Coffee.

Offerings in auction have been:—

—			7—13. March.	Since 1st Jan.	Last Year.
East India	...	...	805	1,109	Nil.
Costa Rica	...	...	1,253	12,789	25,922
Other Milds	...	...	1,730	15,039	39,154
Brazil	...	...	3,339	44,093	11,059
Robusta	...	...	Nil.	654	248
B. E. A.	...	...	17	2,244	5,300
Uganda	...	...	600	3,892	

Messrs. T. H. Allan & Co., in their Weekly Report dated 14th March say that with regard to the Prohibition Order the Deputation met the Controller of Restricted Imports on the 9th March and submitted to him in detail the position of various classes of Coffee, showing how they would be affected by restrictions.

The Controller pointed out that at present he could only interpret the Proclamation as it stood. Coffee actually in transit to the United Kingdom, or awaiting shipment, freight having been previously engaged, on the date of the Proclamation, 23rd February, would be admitted; also any specific parcels which had been definitely contracted for and paid for, but the special privileges which the Deputation asked should be given to British grown Coffee could only be submitted to the Government for consideration. The Controller fully appreciated the disastrous results likely to follow strict prohibition, but could only point out that many other articles, such as fruit, etc., were in practically the same position.

Up to 14th March nothing further had been heard from the Controller but planters can rest assured that the matter is being attended to, and that no stone will be left unturned to obtain a satisfactory decision.

A Deputation from the "Home Trade" met Lord Devonport on 14th March to offer suggestions for the regulation of prices to the consumer.

Prices at auction have been irregular but East Indias have realised very full values. The following prices have been obtained by estates in Southern India.

	No. 1.	No. 2.	No. 3.
MYSORE—			
Utollalu ...	55 at 107/-	29 at 104/-	2 at 90/-
Yellagode ...	13 at 115/6	6 at 106/6	1 at 90/-
Buskull ...	20 at 111/6	...	...
	27 at 111/-	9 at 107/-	1 at 90/-
Maynard's Q.H. ...	21 at 109/-	23 at 106/6	4 at 92/-
Maynard's D.K. ...	11 at 110/6	9 at 105/-	1 at 90/-
Maynard's K.G. ...	6 at 109/-	10 at 103/6	4 at 92/-
Woger ...	49 at 107/-	21 at 102/6	...
Yellikodigi ...	43 at 117/6	13 at 107/-	...
Chetenhulli ...	17 at 113/-	19 at 106/6	4 at 92/6
COORG—			
Corringabetta ...	57 at 108/-	27 at 104/-	1 at 94/-
	P. B.	T.	Average.
MYSORE—			
Utollalu ...	17 at 141/6	9 at 91/-	109/9
Yellagode ...	4 at 143/6	2 at 91/6	114/10
Buskull ...	...	...	...
	7 at 145/-	3 at 92/-	113/-
Maynard's Q.H. ...	5 at 134/-	3 at 90/-	108/-
Maynard's D.K. ...	2 at 131/-	1 at 88/-	108/4
Maynard's K.G. ...	3 at 140/-	1 at 87/-	106/11
Woger ...	...	...	...
Yellikodigi ...	...	...	...
Chetenhulli ...	7 at 142/-	3 at 90/-	111/6
COORG—			
Corringabetta ...	10 at 140/-	3 at 91/-	110/-

Tea.

The Auctions on 14th March were still suspended pending some agreement as to the best way of carrying out the new regulations about retail prices.

Rubber.

The prices continue to fluctuate from day to day within narrow limits. Closing prices on 13th March were at about 3/3 for both Crepe and Sheet.

Pepper.

Market quiet but firm. Fair Tellicherry nominally 1/-.

R. D. A.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	59,792	0	2
Mrs. H. W. Raikes	...	17	8	0
Messrs. Barber & Pascoe	...	75	0	0
Mr. H. Waddington	...	30	0	0
Total Rs...		59,914	8	2

RUBBER.

Manuring of Rubber Plantations.

It has frequently been stated that manures have no appreciable effect on the yield of rubber from Hevea trees. It is admitted that very few experiments, approved by men competent to plan and carry out such work, have been made; certainly the results so far published are of very little value. It is extremely difficult to prove what portion of a rubber crop is due to the manure applied, because there are uncertain factors to be allowed for, such as coolies capacity, thickness of bark shavings, percentage and composition of reserve foods in the trees and the tapping areas, variation in loss during collection and preparation, and the hidden potentiality of every tree. There are obviously many other factors influencing yield, each of which operates in such a manner as to demand the greatest caution when one is endeavouring to interpret the effect of manures alone. If one is dealing with a leaf crop, such as tea, most of these difficulties disappear. It is on account of the unknown or uncertain factors relating to rubber trees, and the yield of latex from bark, that many planters have become dogmatic and refused to advise the application of manures of any kind to Hevea plantations. We think such an attitude is wholly wrong.

Of course it is at once agreed that many rich soils do not, as even in the case of some tea lands, require any artificial manures. It is also admitted that Hevea trees, when young, do not develop a mass of inter-lacing rootlets which take entire control of the soil; in this respect there is a conspicuous difference when young Hevea roots are compared with those of tea and coffee bushes, planted from four to eight feet apart. It is often wise and most economical to restrict cultivation on old and young Hevea land to forking or changkolling and liming only; especially is this the case on flat, low-lying, rich, alluvial soils. But the fact that such work has a beneficial effect proves conclusively that Hevea trees, in tapping especially, readily proves the increased quantity of plant food rendered available by such tillage operations.

EFFECT OF MANURES ON RESERVES AND BARK RENEWAL.

The effect of tillage operations is not, at once, measurable in terms of increased yields, but by the difference in rate of growth of the Hevea trees and appearance of foliage. The same result must follow the application of well-compounded and properly applied manures. The yield of rubber from any Hevea trees is ultimately determined by the vigour of the plant, and therefore by the amount of food it absorbs. If food absorbed by the roots is not at once utilised by the growing parts, it is stored in the bark and wood cells; it is not wasted if the trees are in a healthy condition. The renewal of bark in tapping areas and the actual yield of rubber therefrom is dependent on the quantity and nature of reserve foods in the tree, and especially those in the vicinity of tapped areas. It is therefore absurd for any planter or director to state that manures have no beneficial effect on the yield of rubber. Any tillage operation or manure which increases the amount of foliage, the rate of growth of the tree, or the reserve stores in the bark and wood, must very seriously affect yields. The only point which opponents to tillage and manuring do not see is that the first effect of an increased supply of food is not to give a larger crop of rubber but to make healthier and stronger plants. We do not believe that any planter or

director of repute would ever state that manures had no effect on growth, and therefore on bark renewal. And surely an improvement in the rate of bark renewal is the object to be aimed at, and is, in fact, the outcome of such work.

NATURAL IMPROVEMENT OF RUBBER SOILS.

It is many years since the effect of Hevea trees on soil was publicly discussed. The writer published, when in charge of the old trees at Heneratgoda, Ceylon, analyses of soils made by Mr. Kelway Bamber. It was at that time, and is still, recognised that soil under forest cultivation gradually improved as the result of the activity of roots, general protection from loss of soil by waste, and accumulation of leaves and other vegetable matter. It is well-known that new jungle soil is richer than land which has not been covered by undergrowth, there having been but few occasions when the accumulated organic matter could be washed away or decomposed. Hevea is typically forest tree, and the same changes in the soil should to some extent be going on where Hevea is, say, ten to fifteen years old. Under cultivation the changes are not likely to be exactly similar to those taking place in the wild state, owing to the absence of undergrowth, the hardening of the soil by being daily trampled upon, and the fact that bark and other prunings are being regularly removed from areas under cultivation. The absence of undergrowth alone would, on cultivated land, account for very many differences. The most important natural source of organic matter on Hevea plantations is the foliage which is annually shed from the trees. The Heneratgoda analyses showed that the organic matter, potash and nitrogen, were present in larger quantities in soil which had been under Hevea for 29 years than in adjoining grass land. We should like the agricultural authorities at Peradeniya, Kuala Lumpur, Singapore and Buitenzorg to publish further analyses of the mechanical and chemical characters of the soil on the old Hevea blocks at each centre. The results would, we have every confidence, provide instructive reading to all interested in this problem.

MANURES TO BE USED.

It must not be assumed that any artificial manure available should be applied. Many manures are purely temporary stimulants, and would be largely wasted if applied to young clearings or on steep slopes, on account of their being too readily soluble; especially is this the case with manures such as ammonium sulphate, sodium and potassium nitrate and sulphur of potash. All the nitrogen required for Hevea plantations can be obtained from the organic or less soluble manures, such as castor, rape, ground-nut cake, and blood meal; similarly the phosphoric acid can be obtained from steamed, crushed bone meal, basic slag, and fish. Potash, unfortunately, is only available in large quantities in the form of sulphate of potash, though some other salts and organic manures contain a proportion of this ingredient. Germany, by some peculiar good fortune, has been favoured with large natural deposits of potash, and has been the main source of supply in years gone by.

Apart from the composition of the manure, planters must realise that the excellence of their manurial work is influenced by the season, the manner in which the food is applied, and also by previous applications of lime and forking. Our agricultural experts in the East are ready to give their advice to all planters on these points.—*The India-Rubber Journal.*

TEA.**Tea Diseases.****THE SHOT-HOLE BORER INVESTIGATION.**

The investigation into Shot-hole Borer Beetle of Tea (*Anisandrus fornicatus* Eichh) was started in March, 1915. The following extracts are taken from a preliminary report issued in November last by Mr. E. R. Speyer, Entomologist in charge of Shot-hole Borer work in Ceylon:—

I.—SCIENTIFIC INVESTIGATION.

1. *Life History*.—The female beetle alone constructs a branched gallery the entrance hole of which constitutes the exit hole for the offspring when the latter have attained maturity. The normal stages of insect-metamorphosis are passed through by the insect in reaching maturity.

The time extended in the various stages is as follows at an attitude of 4,000 feet above sea level:—

	Days.
(a). Entrance of Female to laying of first batch of eggs ...	25
(b). Egg Stage	4
(c). Larval Stages	25
(d). Pupal Stage to emergence of Adult ...	6
	—
Total ...	60
	—

The female which makes the gallery does not leave it during the development of the broods, and usually dies in the gallery after emergence of the broods. If sufficient food remains, the female may live for at least 21 days in the gallery which the offspring have vacated.

Maximum number of young individuals found in one gallery, 34.

Average number of young individuals found in one gallery, 15.

The proportion of male to female is as 1 to 5.

2. *Seasonal History*.—The development is less rapid in the wet season than in the dry. It is estimated that four to six generations take place in the course of one year. No definite resting period of æstivation or hibernation can be traced.

3. *Elevation*.—The insect is found from sea-level (Southern Province) to 4,800 ft. above sea-level (Uva) in tea, and at 5,000 ft. in castor-oil tree. The development is slower at high elevations than at low.

4. *Parts of the Tea-plant attacked*.—The leaves and seed are not attacked. The true roots are not attacked. Seedlings less than one year old are seldom attacked. The collar or trunk of the bush is sometimes but not often attacked below the ground-level to a depth of 2 inches. All other parts of the plant, except branches less than $\frac{1}{4}$ inch in diameter, are liable to infestation. Seed-bearers are seldom attacked in the trunk, and only one case has been found of attack after death of the tea bush.

5. *Food*.—The female beetle, while constructing the gallery, deposits the spores of a fungus on the gallery walls. The fungus hyphæ give off spores which afford food for the larvae. As far as can be ascertained, the sap of the tea-plant affords no source of nutrition to any stage of the insect. The adult beetle, while boring, ejects the borings without eating any part of the wood tissues; the larvae and young adult beetles neither excavate nor feed on any of the tissues of the plant.

6. *Damage to Plant—Direct*: (a) In thinner branches the presence of a horizontal circular gallery between pith and cambium causes these to break easily, especially in windy seasons. (b) While constructing the gallery, the salivary juice of the female beetle causes a disturbance in the tissues, leading to a staining of the wood and an abnormal deposition of carbonate, probably of calcium, in the tissues. Rotting of the wood follows, causing much damage to frames, and causing much die-back in branches left below the level of pruning.

Indirect: (c) After, and occasionally before, the vacation of the gallery by the broods, a multiplication of the cambium cells takes place in the region of the entrance hole, and also at the extremities of horizontal circular arms of the gallery lying in the cambium region. This gives rise to a cylinder of wood which finally fills the gallery completely. The length of a normal gallery is about 2 inches, with a constant diameter of about $\frac{1}{20}$ inch. The volume of wood replaced in each gallery is therefore about $\frac{1}{2}$ cubic inch. The formation of wood should normally go to the production of leaf.

It has been impossible to gauge the exact loss of crop due to Shot-hole Borer, but it is estimated at 100 to 200 lbs. per acre on fields giving a low yield, the loss being roughly in inverse proportion to the leaf crop on high-yielding fields. For example, a field giving 300 lbs. per acre should yield 400 to 500 lbs., and one giving 1,000 lbs., per acre should give slightly more than 1,000 lbs.

7. *Shade*.—Shot-hole Borer is especially abundant under shade of rubber: this, however, is probably due to a drain on the soil properties. Under grevillea and other common shade trees there is no evidence that the extent of attack is any less than on fields exposed to the direct sun. Shade is, therefore, no check upon the ravages of the Borer.

8. *Natural Enemies*.—Two insects have been found to be predatory on Shot-hole Borer larvae. One is a species of thrips and the other a trogositid beetle. Neither are found commonly enough to have an appreciable effect in checking the increase of Shot-hole.

During the wet season an overgrowth of the fungus upon which the insect feeds is liable to take place in the gallery, which leads to the blocking of the galleries and the appearance of a bacterium which, apparently, causes disintegration of the fungus. Many broods are often destroyed by this condition, especially in well cultivated tea. Often the larvae of one of the fruit-flies are found in the gallery; this fly is commensal with the larvae, and is not directly injurious to the larvae of Shot-hole.

II.—PRACTICAL INVESTIGATION.

1. *Effects of Pruning*.—It has been demonstrated by experiment that, subsequent to pruning and the appearance of the first new shoots, a physiological condition is produced in the tea-plant which renders those plants highly immune to attack for periods after pruning varying with the health of the plant. The more frequently tea is pruned in infested districts

the heavier becomes the attack. This cannot be solely due to climatic condition or elevation, and must be occasioned partly by an obliteration of the essential physiological conditions caused by frequent pruning. The return of the beetle to fields where the pruning immunity is prevalent is from two sources: (1) from adjoining fields which have naturally out-run their immunity, and (2) from a small proportion of bushes where the beetle is able to live through periods closely following pruning. The latter bushes are often characterised by 'die-back' of some of the branches after pruning, and it is in these die-backs or in late-shooting branches that the beetle mostly survives. In any given field the attack is at its minimum from two to four months after pruning, the attack increasing slowly in well-cultivated and long-running fields for a period of from six to eighteen months. After this the increase is more rapid, until the time of pruning.

2. *Treatment of Prunings.* (a) *Burying Prunings.*—Shot-hole Borer Beetle is able not only to live but to breed in buried prunings for a period of two months after burying, and almost certainly longer. Therefore, at least two generations can result after pruning, if the prunings are buried. Records show that the beetles can actually emerge through earth 9 inches deep, and it is reported that they have been seen to emerge from greater depths. Observations on prunings buried to a depth of 1 foot 6 inches, and covered with mounds of earth, provided negative evidence to the effect that the beetles had emerged from that depth.

As it is possible to return a large proportion of organic matter to the soil by burying the leaves and small twigs, and destroying the woody parts, the burying of complete prunings is strongly to be deprecated. The application of lime, basic slag, and sulphate of potash to prunings at time of burial does not affect the Borer. The insect has been killed in prunings buried with sodium bisulphite and potassium cyanide, but this is both costly and dangerous to handle.

(b.) *Prunings left on the ground.*—Any insects in the young adult, or sometimes pupal, stages at the time of pruning can emerge from the prunings. In wet weather, beetles have been found in the prunings for a period of twenty days. In dry weather the beetles and larvae begin to die after the second day from pruning, if the prunings are exposed to the sun. The insect seldom enters a pruned stem on the ground, and cannot produce offspring in such an event. To be effective, the woody parts of prunings must therefore be destroyed within two days of pruning.

(c.) *Burning Prunings.*—This practice is not found to have an appreciable effect in controlling the beetle. In addition, valuable organic matter is lost by wholesale burning, which involves portions of the prunings which are not liable to attack and are therefore unnecessarily destroyed. By burning, all the organic matter is lost. The potash, lime, and phosphoric acid contents are saved if the ash is returned to the soil.

It is considered, unquestionably, that the leaves and small twigs should be slashed from prunings immediately after each bush is pruned, and the woody parts removed at once and destroyed by fire. The practice has been carried out over large areas at a cost of Rs. 4 per acre, including the burning. Slashing the leaves from unpruned bushes before pruning cannot always be recommended, as much leaf material is lost by the practice. Twigs of greater thickness than an ordinary pencil should not be slashed from the prunings, but should be destroyed with the thicker wood. When disturbed by pruning, it is the habit of the insects to push their way as far as possible into their galleries. They will therefore not escape at the time of pruning.

3. *Cultivation and Soil Composition.*—There is no longer any doubt that high cultivation has played a great part in checking the increase of Short-hole Borer. Soil samples taken from uninfested estates show a general tendency to higher nitrogen content and better humus than those taken from infested estates. Samples taken from areas of fields with low and high infestation, respectively, show higher nitrogen content and lime content in the former, though much variation is apparent. Much green manure, together with dressings of lime is, therefore, strongly recommended.

4. *Green Manure and Wind-Belt Trees.*—Shot-hole Borer attacks dadap, albizzia, tephrosia, crotalaria and grevillea.

(a) *Dadap.*—Old dadaps suffer severely, therefore they should not be allowed to attain a large size. When ringing dadap the ringed surface attracts the female beetle. It is advisable from ten to forty days after ringing to scorch the ringed surface by means of a blow-flame. Dadap cuttings should not be removed from one estate to another, as they often contain the Borer.

(b) *Albizzia.*—The branches are often infested high up on large trees. These are usually in a bad state of health and show signs of other diseases. Unhealthy trees should be removed immediately.

(c) *Tephrosia* and (d) *Crotalaria.*—*Tephrosia candida* is often heavily infested. When using as a mulch, the green portions should be cut off, and the woody parts removed and burnt. This also applies to *crotalaria*. Both should be cut low within two to four months after each pruning suggested in the scheme.

(c) *Grevillea.*—Healthy trees exude a gum on entry of the beetle, which causes death to the insect. Branches broken by the wind are often successfully attacked, and should be removed when possible. It should so be arranged that all green manure trees be used as a mulch at a time two to four months after any pruning in a given field.

5. *Other trees.*—An Ordinance has been passed for the eradication of castor-oil trees in the tea growing area of Ceylon. They should be burnt immediately or as soon as possible after cutting down. Many other shrubs and plants are attacked in heavily infested districts, but the beetle very seldom rears broods in them.

6. *Jungle Belts.*—It has been recommended that jungle belts of not less than 30 feet in width be planted between adjoining estates, where the tea of one estate is adjacent to the tea of another. The trees suitable for the purpose are: (1) *Acacia decurrens*, for high elevations; (2) *red gum*, *blue gum*, and *toona* for medium elevations; (3) *rubber* and *cocoanuts* for low elevations. The undergrowth should consist of jungle shrubs, managrace, etc. A patana belt $\frac{3}{4}$ mile wide has been found to have kept one field isolated from another for several years in respect of Shot-hole Borer.

Belts of castor-oil trees cannot be planted as traps, as they mature at different times. The insects established in an early maturing tree would, on emergence, find no other suitable tree surrounding, and would fly back to the tea. E. R. Speyer,--*The Tropical Agriculturist*.

RESEARCH IN INDUSTRIAL LABORATORIES.

The Organisation of Industrial Research.

It is generally conceded by those engaged in the direction of industrial research that, in order to be efficient, research laboratories of this type should be as thoroughly equipped as possible. In the case of industrial concerns having a number of plants and in the case of organisations of manufacturers, the tendency of organisation should undoubtedly be towards concentration and co-operation in the maintenance of one large well-equipped research laboratory, rather than towards the erection and support of a number of smaller separated laboratories. It is, of course, necessary, especially in the case of chemical plants, that the analytical and control work should be carried out *in situ*, but experience indicates that it is much better practice to centralise the research work.

Since the policy which ensures adequate guidance to a research organisation must be based upon the accumulation of facts, method in laboratory administration should provide for facilities for securing detailed information on a vast field, and for competent counsel from those who have a store of specialised knowledge. When the laboratory executive's work has passed the one-man stage, a division of labour comes about, and it is here that he must see to it that he surrounds himself with men who are capable of effective effort—alert, original investigators of initiative and leadership.

An organised research administrative staff should result not only in effective division of labour, but also in efficient expenditure of executive energy, more effective plans, and general stabilisation. This can come about if there is a pervading organisation type of mind, which "is common to those drilled in systematic thinking and long immersed in the materials of their particular vocation. Such a mind sees details, but only as parts of a whole; reaches generalisations, but by the inductive route."

With regard to the investigatory staff, while the individual can exert only a very small influence except as a member of an organization or institution, yet a research institution never gains note or influence except through the attainment and achievements of its individual members. The research department of a large industrial concern will be great because it has investigators on its staff who possess great originality and ability and because its director is wise and far-sighted. It is generally conceded that the personal factor is always paramount in industrial research, and that, as in every other organisation, the control of men is the real problem in laboratory administration.

A brief consideration of the conditions favourable to both pure and industrial research is pertinent in connection with any discussion of the personal organisation.

It is particularly adverse to progress to regard able investigators as abnormal men; for successful research demands neither any peculiar conformity nor any peculiar deformity of mind, but it required, rather, peculiar normality and unusual industry and patience. It is little less inimical to expect productive work from those who are absorbingly pre-occupied with other affairs than research, for fruitful scientific inquiry entails, in general, prolonged and arduous, if not exhausting, labour, for which all the researcher's time is none too much. This is the experience of the Carnegie Institution and all other research organisations. It is only to be expected, that those most likely to produce important results in research are those who have qualified for the responsibilities thereof by the completion and publication of several worthy investigations, and who are at the

same time able to devote the bulk of their energies thereto. The productive researchers in our universities are those who are devoting their whole time, or practically their whole time, to investigatory work.

Research should never be allowed to fall into the rut of prosaic routine. The *personnel* of the investigatory staff should be maintained at the very highest standard, and all administrative plans should be carried out with enthusiasm and earnestness.

In the research laboratories of manufacturing plants the personal co-operation of the research staff with the members of other branches of the organisation always proves an important aid in maintaining interest in the work and is, in addition, mutually educating. In particular, the research department should have an *esprit de corps* that keeps things moving and should lead the way so strikingly as to be apparent to all other departments of the corporation. In consequence, mediocrity should never be tolerated. It should be borne in mind, however, that the research man can only accomplish efficient work when he is free from restraint and petty annoyances.

Co-operation is always contributory to success in a research laboratory, and, other conditions being equal, the valuable men are the ones who can and will co-operate with one another. As in business, men succeed only as they utilise the idea and services of other men. It follows, therefore, that the strength of an investigatory staff, properly operated, should increase more rapidly than the increase of its numbers, and that a fraternal spirit will play an important rôle in the productiveness of any research department.

The experience in several of our most successful industrial research laboratories has clearly shown that co-operation between the different departments thereof can be adequately and completely obtained by well-planned weekly conferences on the subjects under study. While some directors of industrial research hesitate to spend the time which these conferences entail, it is the opinion of the sub-committee that conferences of this nature are worth far more than the time they take.

THE SELECTION AND TRAINING OF STUDENTS FOR INDUSTRIAL RESEARCH.

Research leading to the discovery of new ideas requires not only intellect and training, but also initiative or genius; it can come only from an individual who possesses unusual intuition and insight. It follows, therefore, that there is a scarcity of men gifted with the genius for industrial research, and that it requires much experience in selecting suitable men and in training them to the desirable degree of efficiency, after having determined the particular qualities required.

The important requisites for industrial research are often unconsidered by manufacturers, who, in endeavouring to select a research chemist, are likely to regard every chemist as a qualified scientific scout. The supply of men capable of working at high efficiency as investigators is well below the demand; and chemists having the requisites and spirit of the researcher are indeed difficult to find even by those experienced in the direction of research. All research professors know that the location of a skilled private assistant—one who possesses not only originality, but also sound judgment and intellectual honesty—is not easy, because it frequently involves the gift of prophecy on the part of the searcher. It has been truly said that the "seeds of great discoveries are constantly floating around us, but they only take root in minds well prepared to receive them."

On account of the extraordinary importance of new ideas particular emphasis should always be laid upon finding and supporting brilliant researchers. Such individuals can best be found in the universities. The function of the university is to work with the beneficent idea of increasing the sum of human knowledge, and among its most valuable products are those who will work for the exercise of the investigative instinct and the pleasure of overcoming difficulties.

The examination of the training necessary for those proposing to take up industrial research which is common with all scientifically trained men, is too extensive a subject to be discussed by the sub-committee at this time. It is, however, appropriate to consider those subjects in which it seems desirable for the prospective researches to specialise; reference is, of course, made to subjects other than those required by the average student of the sciences as distinguished from their industrial application, but the assumption is not made that what is desirable for research work should not also be available for all.

Research men frequently possess adequate training and scientific acumen, but fail in their ability to use such. There is no question that the element most noticeably lacking in the modern graduate is *resourcefulness*. A qualified research chemist who possesses initiative is usually a creator; but owing to the neglect of existing difficulties in chemical pedagogy, the present-day graduates of our schools of chemistry are too often deficient in inspiration, ingenuity, and insight.

The failure to provide adequate and systematic instruction in chemical literature is illustrative of this contention.

Before commencing laboratory work upon any problem, it is obviously necessary to digest intelligently the important contributions which have been made upon the subject and to take advantage of what other workers have done in the same field. The average graduate is usually almost helpless when attempting to do this, and consequently requires close supervision. The main difficulties are:

(a.) He does not know how to go about it; he does not know where to look as the most probable source; and he is not familiar with the standard treatises and important journals,

(b.) He fails to analyse the subject into its factors and hence generally looks for topics which are too general. Because he does not find any reference to the problem as a whole as he has it in mind, he assumes that nothing has been done upon it and there is nothing in the literature which will be of aid to him in the investigation. Were he to separate his subject into its essential parts and then to consult the literature on each factor, he would find considerable information which he otherwise would miss.

(c.) He does not critically digest the articles under examination, but often he makes only a few disconnected quotations and fails to interpret the work done.

The solution is to be found in the provision in the chemical curriculum, preferably in the senior year, of a course of lectures on the literature of chemistry, with particular reference to the character of the writings and the status of the authors. The purpose of these lectures should be to present a general survey of the voluminous literature and to impart an accurate, systematic working knowledge of chemical bibliography. A concurrent seminary should be devoted to indexing and tracing chemical literature to the cultivation of an acquaintanceship with authorities, and to the solution of bibliographic problems.

The sub-committee also recommends that pedagogic attention be given to the arrangement of a course of study in the principles of technical reporting and in the criteria of literary excellence in the preparation of reports of researches and professional reports. The completion of such a subject, with its accompanying analysis, practice, and criticism, would usefully supplement the training received in chemical bibliography and would develop a capability which is much needed by chemical graduates.

It may be noted in passing that, during the academic year 1914-1915, distinct courses in chemical literature and in technical reporting were established at the University of Pittsburgh. Much success has attended this pedagogic innovation.

The chemical graduate of to-day is also deplorably deficient in resourcefulness in planning research. While this is an extensive subject, a research student may be trained in correct methods of attack, namely:—

(a.) *Analytical Methods*.—Almost all investigations require analytical control. In no feature of chemical work is there more apparent inability to use the analytical training which the man has received.

(b.) *Planning the investigation*.—Resourcefulness in separating a problem into its essential factors and in clearly grasping the inter-relationship of these factors is important. Too many men desire to start in at once and solve the problem at the first attempt. All this might be summed up in the expression "methods of research."

(c.) *Apparatus*.—The sub-committee has not considered just how a man could be trained to be more resourceful in this respect, but it is surely a marked weakness in the average graduate. While a native cleverness is doubtless born, and not made, it ought to be possible to give the undergraduate some training in the use of his mental equipment in designing and planning apparatus which is to accomplish the desired end.

The Factors involved in the Promotion of Co-operation between Manufacturers and the Universities.

The recent impetus imparted to the research activities in American chemical manufacturing has materially altered the traditional policy of industrial secrecy. A striking illustration of this improvement is to be found in the reports of the Industrial Conference held at the fifty-third meeting of the American Chemical Society. This change in attitude, a natural result of the appreciation of urgent action in industrial research, has long been desired by our universities, and it will undoubtedly result in the extension of the practice of referring certain of the problems of industry to university laboratories for study. Many of the numerous problems of chemical as well as mechanical technology could be advantageously attacked outside of the plants, but some central organisation is needed for securing and properly distributing those problems which are pressing. It is clear, however, that stable relations between the universities and industrialists will be worth while only if some mutual benefit can accrue therefrom. This co-operation can therefore be most satisfactorily promoted by actively demonstrating the advantages of the exchange or interchange of subjects for research, which primarily pre-supposes a reasonable freedom from the concealment of knowledge which persistently adheres to all industrial research.—*Nature*.

(To be Continued.)

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 18.]

MAY 5, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

DISTRICT PLANTERS' ASSOCIATIONS.

Mundakayam Planters' Association.

*Minutes of the Second Quarterly General Meeting of the
Mundakayam Planters' Association held in the Mundakayam Club,
on Saturday 14th, and Sunday, 15th April, 1917.*

SATURDAY, 14TH APRIL, 1917.

PRESENT :—Messrs. J. R. Vincent, (Vice-Chairman), R. Harley, N. D. Pollock, N. B. Hartley, H. M. E. Howson, H. B. Kirk, E. Vincent, H. B. McPherson, Wm. Hendry, J. E. Heflebower, and C. Hendry, (Honorary Secretary). *By Proxy* :—Mr. Eric Hall.
Visitors :—R. D. Anstead, Esq., Deputy Director of Agriculture, Planting Districts. Dr. Barker, Director of Industries, and W. McRae, Esq., Government Mycologist.

In the absence of Mr. Eyre, the Vice-Chairman presided.

The Vice-Chairman alluded to the recent death after a short illness of Mr. G. West, who was for nearly two years Honorary Secretary of this Association, and asked the Members to pass a vote of condolence with his relatives, all standing and in silence.

AGENDA.

1. Minutes of last meeting.
2. Election of Chairman.
3. Letter from Mr. Eyre and molesting of Estate Coolies.
4. Sri Mulam Popular Assembly Delegate's Report.
5. Scientific Officer's Scheme.
6. Provision of extra bedrooms in the Kottayam Travellers' Bungalow.
7. Combined Travancore Planters' Association Delegate's Report.
8. Mundakayam Town improvement Committee.
9. Exports of Tea.
10. Finance and Accounts.
11. U. P. A. S. I. Annual Meeting.
12. Building Rates.
13. Correspondence.
14. Date of next meeting.

1. The minutes of the last meeting were taken as read, and the Vice-Chairman explained that the question of the admittance of the Association to the membership of the Local Committee of the R. G. A. could not be settled at their recent meeting in Calicut, but that the application had been forwarded home and that the Association would doubtless hear from Mr. Fletcher Norton on the subject.

2. Mr. Harley proposed and Mr. C. Hendry seconded that Mr. J. R. Vincent be elected Chairman in place of Mr. Eyre who had left the District.—*Carried.*

3. A letter from Mr. Eyre resigning the Chairmanship of the Association, and bringing to the notice of the Members the difficulties and trouble experienced by Estate Coolies from the Railway Police on the Ernakulam-Shoranur branch of the South Indian Railway, when travelling to and from the Estates was read. After some discussion it was resolved that the Honorary Secretary write complaining of the state of affairs to the Head of the Railway Police of the Ernakulam-Shoranur section and asking for measures for the prevention of further trouble.

4. The Delegate to the Sri Mulam Popular Assembly (Mr. E. Vincent) reported as follows:—

“Mr. Chairman, Gentlemen,—As instructed by you I attended the Sri Mulam Popular Assembly. The Assembly opened on February 12th.

My two objects were (1) Hospitals and Opiates. (2) Mundakayam-Rani Road.

Regarding the Mundakayam Hospital, I pointed out the present lack of a Hospital and gave the Dewan figures showing the large Estate population we have and the great number of coolies passing through the town. I further gave figures, supplied by different Estates, showing what a large number of non-Estate coolies are treated each year by Estate Hospitals, particularly those near the main cart road and those proximate to the out-lying villages. I saw the Durbar Physician, Dr. Campbell Perkins, and explained the situation to him,

I gathered from the answers to my representation that lack of funds precluded the erection of a Hospital at present, but that Government would consider the question of a grant-in-aid for Estate Hospitals in the District.

OPIATES.—The question of the importation of Opium and Opium preparations for use in Estate Hospitals should have been brought up under excise and not coupled, as it was, with the subject of Hospitals which comes under Public Health. The Dewan however kindly consented to my speaking on the subject and I went into careful details regarding our difficulty in getting our Import License up before the expiry of the Export License.

I made several suggestions with a view to solving this difficulty, but I do not think Government inclined to alter the regulations. The Dewan intimated to me that the remedy seemed to lie in the speeding up of the Excise Department and promised me that this should be done.

With regard to the Mundakayam-Rani Road, at the outset the Dewan said that no file existed on this subject. I pointed out that the matter was mentioned by me at the Sri Mulam in 1914. It is evident that with these long standing questions, Government's attention must be called to them at intervals otherwise there is a danger of the subject lapsing into obscurity. Proceeding, I explained our reasons for asking for this road. Here again there is the lack of funds to contend with. The Dewan said in his opening speech that new projects generally must be abandoned during

the war unless absolutely necessary and as far as the D. P. W. is concerned money would only be spent on upkeep, and completion of works now in progress. He promised careful consideration of the Mundakayam Rani Road and I hope this Association will not allow the matter to drop."

Mr. Kirk proposed and Mr. Wm. Hendry seconded a vote of thanks to the delegate, and requested the Association to try to impress upon Government the desirability of Import Permits for the importation of drugs, tobacco, etc., being issued with the least possible delay. It was also pointed out that considerable inconvenience and loss, owing to the delay in the issue of Import permits, had been experienced by the Planters of the District, and it was felt that, as the Estates issued free of all cost to near by Travancorian Villagers, Medicines and Medical comforts, Government might be asked to give this their favourable consideration.—*Carried.*

5. A letter from the Travancore Government announcing a proposed grant of Rs. 3,000 per annum to the U. P. A. S. I. and Madras Government Scientific Scheme was read and a hearty vote of thanks to His Highness's Government was passed. To discuss the question of the Scientific Scheme the meeting went into Committee and after a full discussion, during which Mr. Anstead kindly gave the meeting the benefit of his views on the matter, in open meeting it was resolved that a committee consisting of Messrs. Harley, Howson, and Hartley with the Chairman and Honorary Secretary ex-officio, be appointed to go into the matter and formulate a scheme for Scientific Research during the period of the war, and afterwards if necessary, to be laid before the Association at its next meeting.

6. The Chairman proposed, "that as bedroom and furniture accommodation at the Kottayam Travellers' Bungalow are insufficient, the Association address the P. W. D. asking them to provide at least two extra bedrooms with the necessary furniture." This was seconded by Mr. Hartley and carried.

7. Mr. E. Vincent, the Delegate to the Meeting of the Travancore Combined Planters' Association read his report as follows:—

"Mr. Chairman and Gentlemen,—I attended the Annual General Meeting of the Combined Travancore Planters' Association at Quilon on February 10/17. The only subjects down for discussion apart from the usual reports of officials, were:—

- (1) Election of Office bearers.
- (2) Subjects for Sri Mulam.
- (3) Shipping freights.

Mr. J. A. Richardson was elected Chairman for the ensuing year. Subjects for Sri Mulam were discussed, each delegate speaking and mutual support decided upon.

With regard to Shipping Freights I had no instructions from you and therefore did not speak except to take part in the General discussion. You will have seen from the report of the meeting in the *Planters' Chronicle* that it was decided to await the result of the U. P. A. S. I.'s representations.

Before I sit down I wish to say a few words with regard to that portion of the Honorary Secretary's report directly concerning this Association.

Mr. Lampard in the course of his remarks said that the Mundakayam Planters' Association had intimated that it was applying direct to the U. P. A. S. I., to change the name of the C. T. P. A. to "The U. P. A. S. I. Travancore Branch."

This is rather misleading and to prevent misunderstanding I wish to say that the Combined Travancore Planters' Association was asked last year to place the question on the Agenda of their next meeting. There was

no question of applying direct to the U. P. A. S. I. Unfortunately, and probably owing to the change of Secretaryship in both Associations, the subject was not put on the Agenda at Quilon, and having no instructions from you, I could not, at the time, call Mr. Lampard's attention to his error."

The matter of the changing of the name of the T. C. P. A. as embodied in the above-mentioned resolution was discussed, and it was the opinion of the Meeting that the matter should be allowed to drop. A vote of thanks to the delegate proposed by Mr. Wm. Hendry and seconded by Mr. Howson was carried.

8. Mr. Kirk proposed and Mr. C. Hendry seconded that the Honorary Secretary inform the Commissioner that the Mundakayam P. A. consider a Town Improvement Committee in Mundakayam advisable.—*Carried unanimously.*

9. It was decided that the correspondence on the question of the restriction of Tea Exports be sent to those interested in Tea in the District.

10. The balance sheet called for at the last meeting and which had been circulated by the Honorary Secretary was laid on the table and passed.

11. It was resolved to agree to the date and place of the next U. P. A. S. I. Annual Meeting.

12. Mr. Howson proposed and Mr. C. Hendry seconded that Mr. J. R. Vincent be asked to revise and bring up to date the schedule of Building rates drawn up by him in 1912.

13. Correspondence was laid on the table.

14. The date of next meeting was fixed for Saturday, 7th July, 1917.

After a vote of thanks was passed to the Chair the proceedings were adjourned.

SUNDAY 15TH APRIL 1917.

The meeting was resumed at 10 o'clock when the following gentlemen were present:—

Messrs. J. R. Vincent (Chairman) R. Harley, N. D. Pollock, N. B. Hartley, H. B. McPherson, J. E. Heflebower, H. B. Kirk, Wm. Hendry, J. J. Murphy, E. Vincent, H. M. E. Howson and C. Hendry (Honorary Secretary).

Mr. R. D. Anstead, Deputy Director of Agriculture, Planting Districts.

Dr. Barker, Director of Industries, Trivandrum.

Mr. McRae, Government Mycologist.

ELECTION OF OFFICE BEARERS.—Before proceeding with the programme of addresses, the elections of Mr. Harley as Vice-Chairman, and Mr. Hartley as a member of Committee, to fill the vacancies caused by Mr. Eyre's resignation, were made.

ASSOCIATION RULES.—On a motion from the Chair it was resolved to place on the Agenda of the next meeting a proposal to add Rs.5 per mensem to the remuneration of the Clerk to the Honorary Secretary, with retrospective effect, as from 1st April 1917.

On behalf of the Association the Chairman welcomed Mr. Anstead, Dr. Barker, and Mr. McRae to the District.

Mr. McRae then addressed the Meeting on the question of Fungoid diseases, especially mentioning abnormal leaf fall and root diseases. He laid stress on the necessity of experiments to discover the best preventive measures in dealing with them and promised to visit the District again during the monsoon, to record the effects of the measures taken on the 100 acre, experimental block in the District. With regard to the treatment of root diseases he advised that diseased areas be isolated by means of a trench 2 ft. wide and 2 ft. deep, dug around the affected area, with a safety trench dug at the distance of 15 to 20 ft. from the first isolation trench; that all stumps and jungle roots should be dug out and the affected area treated with a liberal application of lime.

After Mr. McRae had very kindly replied to several questions raised, Dr. Barker addressed the meeting on the subjects of the chief production of Acetic acid and the utilization of possible Potash supplies. His remarks were listened to with great interest and were much appreciated.

Mr. Anstead, in addressing the meeting pointed out the desirability of all Rubber Growers co-operating with Scientific investigators with the view of reducing the effects of the diseases to which rubber is heir, as well as the necessity of utilizing those waste products which are so easily obtainable in the country and which contain considerable proportions of Nitrogen and Potash, such as line refuse, wood ashes etc. In referring to the question of root diseases he recommended that as an insurance against, and preventative of these, all stumps and large roots of rubber trees, removed during thinning out operations, should be dug out to a depth of at least 2 feet.

The speeches were listened to with great interest and the Meeting signified their great appreciation by hearty applause and in according a cordial vote of thanks to Messrs. McRae, Barker and Anstead.

This terminated the proceedings.

(Signed.) J. R. VINCENT,

Chairman.

(„) CHARLES HENDRY,

Honorary Secretary.

Nilgiri Planters' Association.

Proceedings of the Quarterly General Meeting of the Association held at the Collector's Court, Ootacamund, at 11-15 a.m., on Monday, the 16th April, 1917.

PRESENT:—Messrs. A. S. Dandison (Chairman), L. A. Gerrard Rogers, (Vice-Chairman), J. B. Leslie-Rogers (Honorary Secretary), D. Elkington, E. Sydenham Clarke, W. W. Moir, E. Lumsden Egan, G. Oakes, E. H. F. Gerrard, D. J. D. Cockburn, J. B. Vernede, W. A. Cherry, R. N. C. Grove, P. L. D. Beaver, J. E. Bisset, J. H. Wapshare, J. Harding Pascoe, A. K. W. Downing, F. M. Cockburn, H. C. Golden, C. W. Deane, R. Bake, James Stanes. **Visitors:—**Major W. Ward, Captain B. A. Edward, Messrs. G. Benzie, and V. S. Wooduviss.

(1). **PREVIOUS PROCEEDINGS.**—The proceedings of the Annual General Meeting of the 22nd January 1917, and of the Extraordinary General Meeting of the 7th April 1917, were taken as read, and now confirmed.

(2). **SELECTION COMMITTEE IN CONNECTION WITH THE COMPULSORY SERVICE SCHEME.**—As this question is of some importance to the Planting Community, it attracted considerable attention at the Meeting, and it was finally proposed by Mr. E. Sydenham Clarke and seconded by Mr. James Stanes and carried unanimously: "That Government be asked that the Nilgiri Planters' Association be permitted to elect two of its members to serve on the Board of the Selection Committee for the Nilgiri District." It was further proposed by Mr. L. A. Gerrard Rogers, and seconded by Mr. E. Sydenham Clarke, and carried unanimously: "That in the event of Government permitting the Association to nominate two members for the Selection Committee, Messrs. A. S. Dandison, and D. El'kington be elected as the Association's representatives."

(3). **PROHIBITION OF THE IMPORT OF COFFEE INTO THE UNITED KINGDOM.**—With reference to this question the following Resolution was adopted: Proposed by Mr. James Stanes, and seconded by Mr. A. S. Dandison:—"That this Association considers that the United Planters' Association of Southern India should continue to press for the removal of the restrictions regarding the import of coffee into the United Kingdom, pointing out that one medium size steamer would meet the situation."

(4). **IMPERIAL PREFERENCE FOR INDIAN COFFEE.**—In connection with this subject a letter from Mr. James Stanes was read, and it was resolved that the letter be printed, and the United Planters' Association of Southern India be asked to include the question of Imperial Preference in the Agenda of its next Annual General Meeting. The letter referred to was addressed to the Chairman, dated Coonoor, 6th April 1917, and runs as follows:—

"Dear Sir,—Now that the subject of the South Indian Coffee Industry is before the Home Government, I suggest that the U. P. A. S. I. be asked to approach the Board of Trade to give them some particulars of what planters have done in the way of coffee growing in this country.

I suggest they point out the great struggle planters have had for many years to keep their heads above water and the industry going, owing to bad seasons, pests, diseases, and poor prices for their produce.

There must be over 250,000 acres under coffee in South India, which not only pay a substantial revenue to Government, keep up roads and communications, but also employ a large European and Anglo-Indian staff with probably a quarter of a million labourers.

I propose the Home Government be urged to give coffee planters an Imperial preference for their produce. It would stimulate a decaying industry, and give a fresh impulse to one of the oldest European cultivations in the East.

At present with cheaper freights and proximity to Great Britain, such coffees from Costa Rica and other alien countries are admitted to the Home Markets free, and compete with the South Indian planters to the disadvantages of the latter."

(5). **WASTE LAND RULES.**—This question was discussed in a general way at Ootacamund on the 28th March 1917 at an informal meeting of some planters, and Sir Robert Clegg, the Forest Member of the Board of Revenue, and Mr. A. R. Cumming, Collector, Nilgiri District. The exchange of views was appreciated by all concerned, and it is expected that the inconveniences and difficulties experienced in the working of the rules will be largely removed in future.

At the present Quarterly General Meeting it was resolved that the thanks of the Association be conveyed to Sir Robert Clegg and Mr. A. R. Cumming for their interest in the matter, and for the opportunity kindly given planters of informally discussing existing conditions.

(6). DEVAMULLA RESERVE FOREST.—The question of the acquisition of this Forest in the Ouchterlony Valley by Government for the extension of Cinchona cultivation has been brought to the notice of the Association on more than one occasion; and on the 26th August 1914 a resolution was passed protesting against the proposed disafforesting of the said area, and as a result Government decided that the Devamulla Reserve Forest should not be felled.

On the 23rd January 1917 Mr. J. H. Wapshare of the Ouchterlony Valley again called the attention of the Association to the revival of the Government proposal to extend Cinchona cultivation over the Devamulla Forest Reserve area. The matter was referred to the Hon'ble Mr. E. F. Barber, Planting Member on the Legislative Council, and after due enquiry he wrote on the 5th March 1917 to the Association as follows:—"Dear Sir, I am much obliged to you for the correspondence you sent me, and I have to inform you that orders have been issued to the Director of the Cinchona Department, that the Devamulla shola is not to be felled without further instructions. Under the circumstances, I do not think further action need be taken at present."

The correspondence closed at this stage.

(7). THE U. P. A. S. I. CIRCULAR.—(a) This Association was informed that the original intention of holding the Annual General Meeting of the U. P. A. S. I. at Ootacamund on the 6th August 1917, was found to be inconvenient to the majority of the affiliated Associations, and it was therefore finally decided to hold the Meeting as usual in Bangalore on Monday the 20th August 1917.

(b) SUPPLY OF TIN CANISTERS FOR THE TEA TRADE.—Government informed the U.P.A.S.I., that enquiries were being made of the Secretary of State for India as to the future position of the tin plate supplies, and the result would shortly be communicated. In the meanwhile the suggestion is made to employ other materials for packing tea in all cases, where climatic conditions do not necessitate the use of tin canisters; and that such arrangements should be made for the distribution of tea in India as will secure the conservation and return of the maximum number of empty tins.

(c) PROPOSED RENEWAL OF THE INDIAN TEA CESS.—In this connection the Honorary Secretary was instructed to write to the U.P.A.S.I., conveying the following resolution, and urging the position that the Indian tea market is required for the Indian producer. Resolution: Proposed by Mr. J. Harding Pascoe, and seconded by Mr. L. A. Gerrard Rogers, and carried unanimously, "That this Association considers that an import duty on tea is necessary to protect our own local markets; and it endorses the proposed renewal of the Indian Tea Cess to further encourage Indian tea consumption as already carried on by the Indian Tea Association."

(8). THE INDIAN TEA ASSOCIATION PROCEEDINGS:—

RESTRICTIONS ON THE IMPORT OF TEA INTO THE UNITED KINGDOM.—This important question has been engaging the attention of the above Association for some time, and correspondence still continues with the authorities with a view to easing the situation. A letter on this subject from Messrs. Peirce Leslie & Co., Calicut, was read at this meeting, pointing out that Government by a recent order had now prohibited all further

shipments of tea *via*, and to the United Kingdom, and that it is not known how long this order will remain in force. The situation is receiving the serious consideration of the Association, but from absence of any definite information as to the necessity of such orders, it is deemed advisable to institute further inquiries. The Honorary Secretary has accordingly been instructed to forward correspondence and refer the matter to the Hon'ble Mr. E. F. Barber, leaving him to take what action is necessary, and to advise the Association as to existing conditions, and the probabilities of an early amelioration of the situation.

(9). FOREST DEPARTMENT CORRESPONDENCE:—

FOREST RESERVES THAT SHOULD BE CLOSED AGAINST THE COLLECTION OF HONEY.—The important question of the preservation of wild bees in planting areas was brought to the notice of the Association at the last Annual General Meeting, when it was resolved that the Members be advised to send in lists of Reserved Forest areas adjoining their estates where the maintenance of the wild bee was desired, so that the Forest Department might close such areas against the collection of honey. As it is now generally acknowledged that the wild bee is intimately connected with the fertilisation of the coffee blossom, and hence the production of favourable crops, it is to be regretted nothing has yet been done to carry out its systematic preservation. It is hoped members will give this interesting matter their favourable consideration, and see their way to applying for the closure of such forest areas as are likely to encourage the increase of bee settlements in the neighbourhood of coffee estates.

(10). Election of New Members:—

Messrs. L. F. Lake, and E. F. H. Gerrard, were proposed by the Chairman, and duly elected members of the Association.

The Meeting terminated with a vote of thanks to the Chairman, and to the Collector for kindly placing the Court Room at the disposal of the Association.

(Signed) A. S. DANDISON,

Chairman.

(") J. B. LESLIE-ROGERS,

Honorary Secretary.

Shevaroy Planters' Association.

Proceedings of a Quarterly General Meeting of the Shevaroy Planters' Association held at Victoria Rooms, Yercaud, on 20th April, 1917.

PRESENT:—Revd. Father Capelle, Messrs. V. Travers-Drapes, E. Travers-Drapes, R. W. B. Gompertz, S. M. Hight, C. L. Hight, A. B. Kundaswamy, C. G. Lechler, J. C. Large, C. Rahm, W. Rahm, B. N. Short, and Charles Dickens (Honorary Secretary).

Visitors:—Messrs. Waddington and N. Hight.

(1). The Notice calling the meeting was taken as read.

(2). U. P. A. S. I. LABOUR DEPARTMENT.—The Honorary Secretary stated that Mr. Waddington had very kindly attended this meeting partly in connection with the resolution passed at Meeting of 16th January 1917, and partly for the purpose of meeting the subscribers to his Department. He was sure all present were very glad to see Mr. Waddington and expressed

his regret, that as some of the subscribers had left the Hills for their holidays, the meeting was not so well represented as it might have been. The Honorary Secretary further stated that some correspondence had passed between Mr. Aylmer Martin and the Association on the Resolution in question and in his opinion he thought it would be advisable to discuss the matter with Mr. Waddington, which would no doubt bring the matter to a satisfactory conclusion. This was accordingly done and the resolution unanimously carried: "That in confirmation of resolution passed at meeting of 16—1—17 and as the Labour Department had met our wishes in this matter, Mr. E. Travers Drapes having consented, it is resolved that he be directed to appoint a Labour Agent for work on the Shevaroy Hills, under his own supervision at a cost to be paid by the Department for a period of six months on trial."

After discussing certain labour matters with the meeting Mr. Waddington left for Salem and a hearty vote of thanks proposed by Mr. C. G. Lechler seconded by Mr. B. N. Short, and carried unanimously, was accorded him, and a wish expressed that he would again visit these Hills and make a longer stay so that members would be able to extend their hospitality to him and take him about to the various beauty spots on the Shevaroyes.

(3) **LIQUOR LICENSES.**—At the request of the proposer Mr. R. W. B. Gompertz the subject was withdrawn.

(4) **COFFEE CESS FOR THE PURPOSE OF ADVERTISING SHEVAROY COFFEE.**—The following resolutions, passed at the Sub-Committee meeting in connection with the above subject, were put before the members for confirmation.

(1) "That all the planters on the Shevaroyes do contribute and subscribe a tonnage basis cess which should be applied especially for advertising Shevaroy coffee through an organised committee appointed by the subscribers in General Meeting."

(2) "That the form of advertising should include the distribution of samples to all respectable coffee shop keepers on the understanding that they should supply the consumer with the same and without any adulteration whatsoever."

(3) "That the Honorary Secretary be requested to circulate these resolutions to the Planting Community, with a special request to the non-members; to give this scheme their wholehearted support."

Messrs. V. Travers-Drapes and A. B. Kundaswamy read interesting addresses to the meeting with reference to the subject. Revd. Father Capelle also addressed the meeting with regard to a scheme proposed by Mr. F. Gaebele of Pondicherry. After discussing the matter a resolution was passed to the effect "that Mr. V. Travers-Drapes do send in a copy of his address to the Honorary Secretary and that the Honorary Secretary forward it to Mr. Gaebele asking him to kindly go through and in conjunction with his scheme, draw up a workable one; that on receipt of same the Honorary Secretary should circulate it to all members; after which a S. G. Meeting should be convened at a time suitable to Mr. Gaebele to discuss it."

(5) **BILL OF COSTS FROM MESSRS. KING AND PARTRIDGE, SOLICITORS, MADRAS.**—The Honorary Secretary was instructed to pay the cost amounting to Rs. 88/8.

(6) **INDIAN DEFENCE FORCE.**—Read letter No. 10/17 dated 14th April, 1917 from Secretary U.P.A.S.I.

With a vote of thanks to the Chair the Meeting terminated.

(Signed) CHAS. DICKINS,
Hon. Secretary, S.P.A.

RESEARCH IN INDUSTRIAL LABORATORIES.

The Organisation of Industrial Research.

(Continued.)

Industrial research laboratories can be of mutual aid by supplying advice and materials. These laboratories should also publish reports of investigations just as freely as possible and thus, by proving the utility of it, assist in the general scheme of the universities—promote the dissemination of knowledge.

In general, the sub-committee endorses the conclusions of the University and Industry Committee of the New York Section of the American Chemical Society.

THE PROMOTION OF A BETTER APPRECIATION OF RESEARCH.

The promotion of a better appreciation of research by the general public can only be obtained by publicity. No complaint can be made of a lack of this at the present time. The large corporations supporting industrial laboratories are themselves expending great sums on giving publicity to their research work. The sub-committee thinks, however, that though the general public now appreciates the value of scientific research, the thing required to increase the number of laboratories is more information as to specific plans for starting and running them. General articles on the advantages of research work would be very much helped in carrying conviction if they were accompanied by definite proposals telling manufacturers of different industries and of different grades in the size of their work what they could do in the way of research work themselves.

The average person who has to decide whether his corporation will support research work can, in the nature of things, know little about it. He desires either to spend much less than is necessary for effective work, or he is frightened by the size of the expenditure which he thinks will be necessary. More specific information would enable him to form a truer idea as to what he was committing himself and what he was likely to get.

So far as possible, arrangements should be made for research institutions to have information as to their work available and to persuade them to give this information freely to inquirers. It would be a considerable step in co-operative effort if all the research institutions that can be reached could be persuaded to put information regarding themselves into some form so that a comparison could be made.

THE ESTABLISHMENT OF STABLE RELATIONS BETWEEN RESEARCH INSTITUTIONS AND THE RESEARCH DEPARTMENTS OF INDUSTRIAL PLANTS.

The suggestion has been frequently made that the establishment of stable relations between the types of organisations mentioned might be effected if a small group of selected representatives thereof could arrange to confer at regular times. After consideration, the sub-committee recommends the formation of an association of research institutions—that is, an association of all those bodies engaged in scientific and scientific industrial research, including such organisations as the research laboratories of

Harvard University, the Massachusetts Institute of Technology, and other educational institutions, the Carnegie Institution laboratories the Mellon Institute of Industrial Research, and the research laboratories of the corporations which are conducting a certain amount of research of scientific importance. Undoubtedly, an association of this nature would meet with satisfactory support, and it would eventually prove an important factor in improving the methods of research organisation.

Stable relations between various research organisations will be worth while only if some mutual benefits can accrue. These can be brought about by an exchange or interchange of "commodities" such as:—

(a) Subjects for research.

(b) Special facilities for extraordinary conditions, such as extreme pressures, extremes of temperatures, etc.

(c) Candidates for employment.

This pre-supposes a freedom from the secrecy which still surrounds the industrial research of certain organisations. Undue secrecy is unnecessary and unwise, but it is only in those cases where publicity is compatible with industrial progress that full co-operation between the universities and the industries can be effected.

A COMPARATIVE STUDY OF INVESTIGATIONAL ACTIVITIES.

The study would be distinctly worth while, but before the initiation of such a movement there must first be established more mutual confidence than now exists. A comparative study of this kind would be very difficult and would necessitate the expenditure of much time. Probably such information could be secured by obtaining the reports regarding the industrial research laboratories in operation, and there is no reason why a suitable questionnaire could not be prepared and distributed, in order to obtain information regarding research conditions and comparative data relating to the organisations maintaining laboratories.

It would be very useful indeed to have available a year-book pertaining to research laboratories, with the following lines of information: institutions, organisations or concerns supporting them, approximate purpose of laboratory, divisions of science represented therein, manufacturing facilities directly associated therewith, approximate annual expenditure for maintenance of research, number, and particulars relating to the training, of the members of the investigatory staff, and, finally, a list of the scientific publications for the past year. Such a book might also advantageously include mention of the special equipment of the laboratories unlikely to be possessed by every similar institution.

The National Research Council, through its committee on research in educational institutions, could well arrange to have some one whose sole duty it was to co-ordinate the work in university laboratories with reference to general or national welfare. While any attempt which may be made by a national society or association to secure co-operation between industrial and institutional laboratories will invariably encounter the difficulty of vested interests, an organisation with Governmental support might accomplish much fruitful research work through institutions of learning and in such a way that this would be of material benefit to the institutions concerned, as well as to the nation.—*Nature*.

CORRESPONDENCE

Bartchinhulla, 25th April, 1917.

THE EDITOR,

Planters' Chronicle.

Bangalore.

Sir,—My attention has been called to a statement in the Proceedings of the South Mysore Planters' Association published in page 207 of your issue of 21st instant, reading:

"Accounts—It was noted, with regret, that Mr. Park has not yet fulfilled his obligation to the Assistant Scientific Officer's Fund, &c."

I cannot allow such a misleading, and one-sided remark, to pass unchallenged.

On the strength of a very long residence in the "Land of Regrets" I claim to be somewhat of an authority on the subject of regret.

The crocodile tears shed over my resignation (which I may say, in passing, was forced by the blundering, or worse of the Executive) and subsequent cessation of subscriptions, may, or may not, be feigned, but after my lawyers have finished with those responsible for the publishing of the previously quoted statement, I sincerely hope the regret will be genuine.

Trusting you will be good enough to grant this the necessary space in your next issue.

Faithfully yours,

A. R. PARK.

In a pamphlet entitled "The High Price of Sugar and How to Reduce It," Mr. Hamel Smith, Editor of *Tropical Life*, directs attention to one of the results of our failure to think out and put into operation in normal times an Imperial scheme for providing necessary supplies of food. There was perhaps some excuse for our failure to encourage the production of corn and meat in this country, but there was none for our neglect to stimulate the production of such materials as sugar in our tropical possessions before the war. The fact of our dependence on foreign countries for sugar was notorious long before the war, yet practically nothing was done, nor apparently is anything of great importance being now done, to alter this state of things. Almost everywhere throughout the Empire where sugar is grown the yields are low, the chief causes being failure to grow best canes available, neglect of intensive cultivation, and adherence to obsolete methods of manufacture. Perhaps the most notorious case is that of India, which, with 2,500,000 acres under sugarcane, is able to produce only 2,600,000 tons of inferior cane-sugar, an average production of about one ton per acre, against a production of about four tons per acre in Java and nine tons per acre in Hawaii. Mr. Smith's proposals briefly are that the improvement of cane cultivation and of sugar-cane manufacture should receive immediate attention from the Imperial, Colonial, and Indian Governments, and he shows that we could without difficulty produce within the Empire all the sugar we require and have a considerable surplus for export.—*Nature*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.
(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. NO. 19.]

MAY 12, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

The Deputy Director of Agriculture, Planting Districts, returned from an extended tour of the Rubber growing districts on the West Coast on 5th May.

Mr. Anstead has been away from head-quarters for some six weeks, and office work and correspondence have necessarily accumulated and got into arrears to a certain extent. This state of affairs is aggravated by the fact that for the next three months or so Mr. Anstead's time will be partly taken up by the military training to which he is liable under the Indian Defence Act. He therefore desires to request planters who have correspondence pending with him to have patience and pardon delays, and it is hoped that unnecessary correspondence will not be thrown on his office in the immediate future. Mr. Anstead will do his best to deal with arrears of work and carry on the affairs of the Scientific Department, but it will be understood that this further limitation of his time, normally very fully taken up, must unavoidably cause delay.

This does not apply to the Analytical Department. Enough Soil work is however on hand to occupy the time of the Assistant Chemist till the end of July. After that date we shall be glad to have further samples for analysis.

At a meeting of the Scientific Committee held at Calicut on 31st March it was agreed that in future, to prevent disappointment arising from a number of samples being received at the same time and consequent delay, on acknowledging the receipt of samples, an approximate date should be given of when the analysis may be expected.

To prevent other misunderstandings planters sending samples of soil for analysis are requested in their covering letter to state clearly and precisely the following particulars:—Name of the Estate, Post Office, Crop grown, Elevation, typical monthly rainfall for a normal year, general nature of the soil, kind of analysis required, and whether a report is required advising general methods of treatment and manuring. Printed forms will be available which may be filled in with these particulars and may be obtained on application to the Deputy Director or the Secretary of U. P. A. S. I.

RUDOLPH D. ANSTEAD,

• Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.

South Travancore Planters' Association.

The Quarterly Meeting of the South Travancore Planters' Association was held at the Quilon Club, on the 21st April, 1917.

PRESENT—Messrs. Cook (Chairman,) Stewart, Knight, J. L. Hall, Pryde, Jackson, Thom, Gray, Moore (Honorary Secretary,) Lampard (Honorary Member,) Mackie, Lord, Clare, Shaw, McMurtrie. (Visitors)—Messrs. Anstead (Deputy Director of Agriculture,) McRae (Government Mycologist) and Marsden (Ceylon Rubber Growers' Association) were also present.

The Chairman in opening the meeting referred to the death of one of the oldest members of our Association, Mr. J. S. Valentine of Poonmudi Tea and Rubber Company who had first come to Travancore in the seventies, and who was widely known throughout South India and Ceylon. It was resolved that the Secretary send Mrs. Valentine a letter of sympathy on behalf of the Association.

The notice calling the meeting having been read, the minutes of the previous meeting were taken as read and confirmed. The correspondence included a letter from the South Indian Railway Company in reply to the Association's complaints as to delay in forwarding goods and it was noted that owing to lack of stock and repair materials, it was impossible to obviate all delays at present.

The delegate to the last Sri Mulam Assembly (Mr. C. Hall) forwarded his report, stating he had spoken on the question of an outlet port at Quilon but that owing to having no specific instances of bad road to place before the assembly, he had found it advisable to withdraw the subject of Roads. It was resolved to receive the delegate's report and thank Mr. Hall for his attendance at Sri-Mulam.

The Annual Meeting of the U. P. A. S. I. having been notified for August 20th next at Bangalore, Messrs. J. B. Cook and Chas. Hall were asked to represent the Association. No special subject of discussion was brought forward for the Annual Meeting's consideration, as the items the Association were most interested in were now in the hands of the Chairman of the U. P. A. S. I.

The question of the renewal of the Indian Tea Cess was discussed and it was resolved to support the recommendation of the Indian Tea Cess Committee that the cess should be extended for a further term of five years.

Correspondence re restriction of freights from the Chairman U. P. A. S. I. and the Honorable E. F. Barber was read and it was felt that in view of the subject being the result of an Imperial Order very little could be done. In regard to the fixing of prices by the Food Controller, the Secretary was instructed to write to the U. P. A. S. I. asking if any representations could be made that the rates of freight be also fixed to correspond with the fixed prices of tea.

There being no further business, Messrs. Anstead, McRae and Marsden were introduced to the meeting and members were invited to ask questions concerning tea and rubber cultivation. Members took advantage of this and much interesting information was gained. The meeting closed with a vote of thanks to these gentlemen also to the Committee of the Quilon Club for allowing meetings to be held on the Club's premises.

(Signed) R. J. A. MOORE,

Honorary Secretary.

Kadur and Hassan Motor Association.

Minutes of the 2nd Annual General Meeting, held at Chickmagalur T. B., at 11 a.m. on the 8th April, 1917.

PRESENT.—Captain Watson, Messrs. H. M. Northey, H. Allardice, M. J. Woodbridge, A. Thomson (Honorary Secretary). *Visitor*.—L. P. Kent.

Captain Watson was elected to the Chair.

The minutes of the former meeting were read and confirmed.

OBSTRUCTION OF ROADS AND TOLL FEES.—“Resolved the Honorary Secretary is instructed to write to the President of the Kadur and Hassan District Boards and enquire what steps they had taken with regard to the Resolutions passed by this Association for the provision of cart stands along the roads, numbering all carts and reduction of toll fees on motors and which were forwarded to them for consideration by the Government of His Highness the Maharaja of Mysore.”

FINANCE.—These having been audited by Captain Watson, proposed by Mr. Woodbridge and seconded by Mr. Northey. “That the accounts be passed.”—Carried.

R. A. C.—Resolved “that the Honorary Secretary be requested to circulate copies of the badge to all members, members who require badges are asked to order them through the Honorary Secretary and pay for them in advance.”

R.A.C.—Insurance.—Resolved “That the correspondence be circulated with a view to all members who wish to do so insuring through the Association.”

TYRES.—Resolved “that the Honorary Secretary should enquire from all members what is their favourite tyre with a view to the Association taking up the Agency of the most popular.”

The Honorary Secretary therefore requests all members to communicate their views on the subject at their earliest convenience.

ROADS.—Resolved “The Association with much regret has to reiterate its oft expressed opinion that most roads in the Kadur and Hassan Districts have deteriorated to such an extent that wheel traffic of all kinds is constantly subjected to the most unfair risks, and further that one member counted on the 21st inst. on the Imperial road between Chickmagalur and Sakrapatam a distance of 14 miles, 8 carts with broken axles.”

Resolved. The Honorary Secretary is accorded a very cordial vote of thanks.

ELECTION OF EXECUTIVE.—The following were elected:—

Capt. Watson, Messrs. S. A. Wajaid, C. H. Browne, C. Lake.

The Honorary Secretary was re-elected.

The meeting closed with a vote of thanks to the chair.

(Signed) A. THOMSON,
Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Offerings in auction have been:—

—	15—21 March.	22—28 March.	29 March 3 April.	Since 1st Jan.	Last Year.
East India ...	592	951	110	2,762	2,073
Costa Rica ...	2,496	33,513	5,101	23,979	42,354
Other Milds ...	2,302	1,101	1,596	20,038	44,962
Brazil ...	2,068	4,019	1,860	52,040	19,680
Robusta ...	Nil.	Nil.	Nil.	654	309
B. E. A. ...	Nil.	27	975	3,246	6,484
Uganda ...	120	169	1,377	5,558	

Prohibition.—Messrs. T. H. Allan & Co., in their Weekly Reports dated 21st March and 4th April state that the Controller has agreed to a more favourable reading of the “in transit” rule. Owing to the fact that Coffee is usually prepared and packed on the Coast “in transit,” if strictly interpreted, would only date from the time when these operations were completed, but the Controller agreed to admit all B. I. Coffee which had left the estates before 23rd February. Further representations are now being made to him in view of the fact that there will be steamers loading on the Coast in the near future. It has been agreed with the food Controller that provided distributors are prepared to sell a good sound Coffee at 1/6 per lb., prices of finer grades will not at present be interfered with.

Several queries as to dates of despatch etc., are before the Controller for decision, but at the moment there are no fresh rulings to be recorded, and no change as yet has been made in the general regulations regarding British grown Coffee. A question asked in the House of Commons on 2nd April produced an unfavourable reply, but the matter is to be brought up again.

Prices of East Indian Coffee have been fully maintained. The following prices have been obtained:—

—	No. 1.	No. 2.	No. 3.
MYSORE—			
Buchanans ...	72 111/6	46 105/6	10 98/6
Macdougals ...	23 110/6	16 103/6	3 97/6
Mocketts ...	52 107/-	20 105/-	3 93/6
Rungiahs ...	59 104/-	21 98/6	...
Moodsoosie ...	36 104/-	15 98/-	2 90/-
Chetanhalli ...	35 104/-	22 98/-	1 90/-
Kents Chick ...	23 105/6	5 97/-	1 89/-
Macdongalls ...	47 100/-	28 96/-	6 90/-
Honeyvale ...	82 106/6	17 100/6	2 91/-
Maynards BK ...	15 100/-	13 98/6	3 89/6
KTT ...	14 100/6	11 94/6	2 90/-
COORG—			
Covercoly ...	21 107/6	14 105/-	1 93/-
Santagherry ...	24 100/-	15 95/-	2 89/6
Faith ...	43 106/-	19 101/-	...
Abial ...	52 102/-	24 97/-	1 91/-
Dalquarren ...	31 103/-	15 97/-	1 90/-
NILGIRIS—			
Thiamulla ...	24 106/-	15 100/-	...
Maramootie ...	19 100/-	11 95/-	...

		PB.	T.	Average.
MYSORE—				
Buchanans	... 22	144/6	9 94/6	112/3
Macdougals	... 6	145/6	4 92/6	110/4
Mocketts	... 14	142/6	4 93/6	110/10
Rungiahs	... 8	110/-	8 94/-	...
Moodsoosie	... 12	125/-	2 87/6	105/2
Chetanhalli	... 8	110/-	2 88/-	102/1
Kents Chick	... 5	125/-	2 87/6	105/7
Macdougalls	... 16	110/6	8 90/-	99/5
Honeyvale	... 6	138/-	5 91/6	106/4
Maynards BK	... 5	132/-	2 88/-	102/2
KTT	... 4	115/-	2 88/-	98/10
COORG—				
Covercoly	... 3	139/-	3 93/-	107/6
Santagherry	... 2	108/6	5 87/6	97/1
Faith	... 4	123/-	2 92/6	...
Abial	... 6	118/-	5 91/6	100/4
Dalquarren	... 4	110/-	2 92/-	101/2
NILGIRIS—				
Thiamulla	... 3	116/-	8 91/6	...
Maramootie	... 3	109/-	3 89/-	...

Tea.

The Tea auctions were resumed on 19th March when the finest qualities were about steady, medium about $\frac{1}{2}d.$ and common about $1d.$ lower than before the interval.

In order to enable retailers to comply with the rule obliging them to sell their teas at $2\frac{1}{2}$ and $2\frac{1}{4}$ per lb. it has been agreed that after the week ending 21st March 40 % of all Indian and Ceylon imports will be handed over to the Control Committee at $1\frac{1}{2}$ per lb., the balance being sold as usual. Opinions differ greatly as to how the prices of the balance will be affected. There are further new regulations as to the conduct of auctions, to prevent speculation.

On 4th April Tea was in strong demand, especially the lower grades which showed a fresh advance.

The following prices were obtained for South Indian Teas at the London auctions up to 2nd April.

	B.O.P.	O. P.	E. P.	Pek.	P. S.	Fgs.	Dust.
TRAVANCORE.							
Bon Ami	... $1\frac{1}{4}\frac{1}{4}$	...	$1\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}\frac{1}{4}$	...	...
Kolie Kanum	... $1\frac{1}{5}$	...	$1\frac{1}{4}$	$1\frac{1}{3}$	...	...	...
Pambanar	... ...	...	$1\frac{1}{4}\frac{1}{2}$	$1\frac{1}{3}\frac{1}{4}$	$1\frac{1}{2}\frac{1}{2}$	...	...
Glenmary	... $1\frac{1}{5}$	...	$1\frac{1}{4}$	$1\frac{1}{3}\frac{1}{4}$	...	$1\frac{1}{4}$	...
Carady Goody	... ...	...	$1\frac{1}{4}\frac{1}{4}$	$1\frac{1}{3}\frac{1}{4}$	$1\frac{1}{2}\frac{3}{4}$	...	...
Yellapatty	... ...	...	$1\frac{1}{5}\frac{1}{2}$	...	...	$1\frac{1}{5}\frac{1}{2}$	...
Sirikundra	... $1\frac{1}{5}$	...	...	$1\frac{1}{4}\frac{1}{2}$	$1\frac{1}{3}\frac{3}{4}$	...	...
Carady Goody	... ...	$1\frac{1}{3}\frac{3}{4}$	$1\frac{1}{4}\frac{3}{4}$	$1\frac{1}{3}\frac{1}{4}$	...	$1\frac{1}{4}\frac{1}{2}$	...
Periavarrai	... ...	...	$1\frac{1}{5}\frac{1}{4}$	...	$1\frac{1}{6}$	...	...
Letchmi	... ...	...	$1\frac{1}{5}$	...	...	$1\frac{1}{5}\frac{1}{4}$	...
Vagavurrai	... ...	...	...	...	$1\frac{1}{3}\frac{1}{2}$	...	...

—	B.O.P.	O.P.	B.P.	Pek.	P.S.	Fgs.	Dust.
NILGIRIS.							
Daverashola ...	1/8 $\frac{1}{4}$	1/4 $\frac{3}{4}$	1/5 $\frac{1}{4}$	...	1/4 $\frac{1}{4}$	...	...
Woodbriar ...	1/6 $\frac{1}{4}$	1/4 $\frac{1}{2}$	1/4 $\frac{3}{4}$	...	1/3 $\frac{3}{4}$	...	...
Barwood ...	1/5 $\frac{1}{4}$	...	...	1/4 $\frac{1}{4}$	...	...	...
Daverashola ...	1/8 $\frac{1}{2}$	...	1/5 $\frac{1}{2}$	1/4 $\frac{1}{2}$	1/4 $\frac{1}{2}$	...	...
WYNAAD.							
Arrapetta ...	1/5	...	1/4 $\frac{3}{4}$	1/3 $\frac{3}{4}$	...	...	1/4
Tangamulla ...	...	...	1/4 $\frac{1}{2}$	1/4 $\frac{1}{4}$	...	...	...
Kardoora ...	1/5 $\frac{1}{4}$	...	1/4 $\frac{1}{2}$	...	...	...	1/3 $\frac{1}{2}$
ANAMALAIS.							
Stanmore ...	1/4 $\frac{1}{2}$	...	...	1/3 $\frac{1}{2}$	1/3	...	...
MYSORE.							
Herradikikhan ...	1/5	1/4 $\frac{1}{2}$	...	1/3 $\frac{3}{4}$	1/3 $\frac{1}{2}$	...	...

Rubber.

After a very dull period during which prices sagged to 3/- $\frac{3}{4}$ for crepe and 3/- $\frac{1}{2}$ for sheet there was a sharp recovery of about 1 $\frac{1}{4}$ d. but the market on 4th April was quiet again at about $\frac{1}{4}$ d. below the top.

Spices.

PEPPER.—Market quiet but firm. Fair Tellicherry nominally 1/-. Local prices are according to the Mysore Chamber of Commerce Circular dated 30th April from Rs. 12 to Rs. 12/8 per 25 lbs.

CARDAMONS.—There has been a little enquiry in the home market for special grades of extra good appearance suitable for America, all other kinds are neglected.

The local price varies from Rs. 25 to Rs. 26 per maund of 25 lbs.

R. D. A.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	59,914	8	2
The Honorary Secretary, High Range Club	...	570	0	0
Mr. C. H. Browne	...	120	0	0
„ Campbell Hunt	...	30	0	0
„ J. A. Richardson	...	50	0	0
Total Rs...		60,684	8	2

RUBBER.

Rubber Stock and Prices.

Any student of the raw rubber market must be surprised to see the crude and manufactured material being dealt in at what, after all, are practically pre-war prices. The only factor, outside enemy countries, which has tended to decrease consumption has been the legislation against the use of petrol by private owners of cars, and the taxation imposed in this and all British overseas possessions on owners of motor cars. Of course, enemy countries have had their supplies seriously curtailed, and we are quite sure that synthetic rubber has not afforded our cultured enemies any practical belief.

But against these factors has been the enormous wastage at sea and on land, and the increased consumption in allied and neutral countries. The increase in supplies has just been sufficient to meet the increase in demand, though many firms may have more rubber on their books or in their stores than they usually have. But throughout the war the main producers have been free sellers, and have never held back raw rubber as a pure speculation. Accumulations have been noticed at Eastern centres, but cable advices are to hand informing us that within a few weeks all will be sold or shipped. There has been active bidding at Eastern centres, presumably from New York or London firms, since local merchants have had their banking facilities curtailed in certain important Eastern countries.

CAUTION AMONG SELLERS.

Despite the absence of any selling organisation among the too numerous producers of raw rubber, the growers must exercise greater caution. They have to face the possibility of some form of shipping nationalisation, which would certainly affect the space allotted to them and the regularity of arrivals. They have also to bear in mind the intensity of the submarine campaign, which will, in all probability, result in loss of crude material at sea, and still further reduce their shipping accommodation. Many firms have sold a very large proportion of their crops forward, and if they cannot deliver first quality must buy in. Under these circumstances, even if there were no other factors vitally affecting them, producers must first of all reserve sufficient to meet not only the immediate requirements of forward contracts, but also ample to cover their commitments a month or two ahead. The necessity arises at a time when American developments point to the desirability of every dealer and manufacturer having more than his usual lot of rubber on hand, and when grave uncertainty prevails as to freight between the East, New York, and London. We therefore consider it advisable that a cool head should be kept for several months to come, and that sellers should act with extreme caution. Sellers are now in a vulnerable position owing to the entire absence of the necessary organisation. There may come a time when the price offered will induce dealers or producers to take the risk and sell more freely. But at present time the net price compared with that of pre-war days is low, and offers no parallel to the price of other important commodities, such as leather, metals and foods. In fact, some economists assert the exchange value of rubber in terms of other commodities is, to-day below what it was before the war. There is, therefore, every reason why rubber growers should take a very careful survey of the position, and not commit themselves to deliver more than they can reasonably expect to put on the counter.

 SUBSEQUENT DEVELOPMENTS.

The immediate future—covering the time required to successfully finish the war—can be faced boldly and confidently. The distant future—that subsequent to the war—is likely to prove of unusual interest to dealers, growers, and manufacturers. We do not believe that the enemy has been successful in securing the option over crops of rubber which he must certainly have if his commerce is to in any way revive. The estimates of the world's crop for this and next year are not such as to provide for the usual increases in consumption among civilised countries in addition to the demand from exhausted enemy territories. If that sacred and much advertised law of "Supply and Demand" continues to operate after the war, there is only one thing possible, and that is a big fluctuation in value of all grades. It is freely admitted that we are getting near the end of the war, and the rubber man who happens to know the month when peace will be declared ought to do well for himself and family.—*The India-Rubber Journal*.

THE UNFEDERATED MALAY STATES.

Labour is still cheap in some parts of the world. In the annual report on Kelantan Mr. R. J. Farrer, Acting British Adviser, tells as a typical case of a woman who carried 40 lbs. of betel leaves six miles to market, and her gross profit, before deducting a market charge of nearly a penny, was 12½ cents, (say 3½d.) out of which she would buy her luxuries before trudging home again. In the report on Trengganu, however, the British Agent, Mr. J. L. Humphreys, is able to go one better with the announcement that a woman's remuneration for an eight hours' day of weaving is 10 cents. Apart from such human touches, the reports on Kelantan and Trengganu, as also those on Kedah and Perlis, are of intense interest to those who can see behind the bare official facts; they show how slowly and with great patience, well-ordered government is being evolved from the corruption and confusion which characterised the affairs of the unfederated Malay States before they came under British protection. With the parliamentary paper embodying these reports is given also the report on Johore, an unfederated Malay State which, is, of course, in a very different category from the other half-fledged products of British Imperial genius. Mr. F. J. Weld, who signs the report as Acting General Adviser to the Johore Government, only arrived in that state in February of this year, and he writes with refreshing enthusiasm about the development of native agriculture in the Batu Pahat and Muar districts. "When one has walked for miles and seen a developed and what appears to be an illimitable system of native agriculture, including cocoanuts, arecanuts, rubber, and some gambier, far more extensive, as regards native plantations, than anything one has seen anywhere in the Federated Malay States, one marvels how the extensive and intensive agricultural development of Johore has become so known to the average European in the Federated Malay States." There are labour troubles, it is true, even in fertile Johore, but those suffering from them must surely find compensation in the cause. Labour is scarce because those who were labourers before are now themselves the proprietors of small estates. In Bandar Maharani, a model township in the Muar province planned by the late Sultan, such is the prosperity that motor-cars ply for hire everywhere. Large areas of coconut and rubber on both sides of the Muar River will be coming into bearing in a few years, and will increase an export of agricultural produce which from this district alone last year was valued at approximately 10,000,000 dollars.—*The Field*.

SOIL.

The Importance of Soil Ventilation.

A very instructive article on this subject appeared in the *Agricultural News*, Barbados, of 2nd December 1916. The writer points out that when considering the composition and structure of a fertile soil, we are apt to overlook the fact that air is a constituent part just as essential as water or plant nutrients. Air supply has never taken definite shape in soil science to the extent water supply or plant-food has, and consequently an important field of investigation appears to lie practically untouched. It is true that drainage in relation to soil ventilation is appreciated, as well as methods of cultivation that go to produce a good tilth, but that does not teach us anything; it gives us no definite clue as to what the roots of different crops require, or whether air supply might not be more scientifically adjusted to suit the roots of different crops, and the beneficial bacteria that function under similar conditions in the soil. If, under certain circumstances, it were found desirable, it should be quite practicable to supply the soil with air by more direct means than by cultivation and drainage, just as we know it is practicable to supply the soil with plant-food in the form of chemicals instead of relying upon weathering and the decay of organic matter. Then considerations suggest a new aspect of land culture, namely, constructive soil ventilation—a definite branch of agricultural engineering associated with drainage.

(In 1908 a Bundaberg sugar-planter spent a great deal of money in draining a large sugar-cane field, and after the work was done, no rain came, and neighbouring planters laughed, for no water came through these drains, and they said he had wasted his money. But, as the cane grew, it was noticed that during all the dry weather that season, when everybody's cane was drooping, and scarcely growing at all, the cane on this drained land kept on growing, and the canes held up their light-green heads, above all other canes in the district, and the crop was nearly double that on the other plantations, although there had been no rain and not a drop of water ran through the drains. The reason was that the moisture from below rose through the warm, well-aired loose soil, and the cane roots went down to meet it, and so they stood the dry weather and grew quickly.—(EDITOR. "Q. A. J.").

Before proceeding to enlarge upon this idea, it will be well to consider what evidence exists to justify it.

The importance of soil ventilation has been brought out prominently by the observations of Howard in India. He has pointed out that crops undoubtedly differ greatly in the amount of air their roots require. In India, for example, Gram requires a great deal of air, and only a moderate amount of water. In some parts of the country, the conditions, both natural and artificial, are such that the roots get plenty of air. Here this particular crop thrives, but in other places, where, for instance, irrigation conditions obtain, Gram will not grow successfully. Howard maintains that the proper provision of air to the soil is all that is necessary for extending the cultivation of this useful crop. The facts are the same in regard to the cultivation of Indigo. This crop is largely cultivated on the higher levels in rice-growing districts. The occasional flooding of these higher levels due to the rise of the rivers is the cause of the low yields obtained in India compared with those obtained under drier conditions in Java,

The two crops just referred to are of course leguminous, and the detrimental effect of insufficient air is partly due to the limited supply of nitrogen available for fixation by the nodules on the roots. But that is only partly the reason; bad aeration has a general retarding influence upon root development. Howard has noticed this even in the case of wheat, which is a crop that can be successfully grown on very heavy land. Experiments conducted at Pusa show that the best-grown wheat can be raised only on soil that is well aerated. Lastly, rice which grows in swamps, is unable to thrive without a supply of oxygen for root development. This is obtained through the surface film of algae and other green organisms on these soils. Certain cultural operations after harvest also help to conserve a store of oxygen in the soil subsequent to the arrival of the rains.

Other crops in other parts of the world are equally susceptible to anaerobic conditions in the soil. In regard to cotton, we know that this plant thrives best on soils of open texture, and that the principal cause of boll-shedding is root asphyxiation, proved by Balls, in Egypt, and fully supported by observations in the West Indies. Cacao is extremely sensitive to clay. That may be because cacao is naturally a deep-rooting plant and the clay offers mechanical resistance to the extension of the roots; but it is also likely to be due to the fact that a clay soil contains less air than a light soil. It is not merely a clay subsoil, but a clayey surface soil that has an adverse effect on the growth of cacao.

Cocoanut trees are very sensitive to inadequate aeration. They will thrive only on land that is well drained either naturally or artificially. No harmful effect is produced on the roots by the presence of water; cocoanuts will thrive in saturated soil provided the water is continually moving. This is a very significant fact concerning the physiological importance of soil aeration.

In view of all these facts, which come within the range of observation of the planter himself, it will be admitted that soil aeration demands greater attention than it has received. The significant fact is, that air is the limiting factor to the efficiency of water supply. Beyond a certain point, water is wasted in the soil if it is not aerated.

Turning more particularly to the physiology of roots, it is very desirable to know more concerning their respiration. Respiration has been studied almost exclusively in regard to the parts of the plant above ground and the generalisations have been extended to apply to the roots. But it does not seem justifiable to assume that the manner in which roots breathe under the complex conditions, both chemical and physical, of soil environment is the same, and follows the same laws as those parts of the plants exposed to the comparatively simple environment of the atmosphere. There is probably a difference in the rate of respiration of the roots of certain plants, and, as already suggested in this article, the growth of certain crops might be stimulated by the artificial introduction of air into the soil.

Constructive soil ventilation as an established branch of agricultural engineering presupposes successful researches into the air requirements of roots and soil organisms. The desirable conditions in different cases having been determined, it should then be possible to establish them.

The methods of effecting soil aeration artificially would come within the province of the engineer. Possibly one method would be to lay down porous ventilation-pipes through which air could be introduced, if necessary, under

pressure. In orchard cultivation vertical tubes might be introduced near the trees and air pumped down them periodically. In the light of soil aeration better use might be made of soil explosives with dynamite, to aerate clayey subsoils especially.

Investigation might show that an alteration in the percentage composition of the soil atmosphere would prove advantageous in some circumstances; for example, a high proportion of oxygen might prove beneficial, or in some cases the removal of an excess of carbon dioxide. There is also the question of the possible value of introducing gases other than those that normally constitute the air of the soil. A matter for speculation is whether liquid air could be usefully employed as a soil fertiliser.

Finally, more might be done to bring about a better state of aeration in certain circumstances by means of methods of cultivation. The forking of orchard soils is still a matter of some controversy, and the true value of this operation requires investigation. The ploughing of the soil in cocoanut plantations gives good results, but its relation to soil aeration is not generally recognised.—*Queensland Agricultural Journal*.

SOIL VENTILATION.

It is curious how the discoveries of the scientific agriculturist confirm the accepted practice of the gardener. The most recent illustration of this fact consists in the recognition that ventilation, that is to say aeration, is a factor of first importance to the growth of field crops. The deep and thorough cultivation as practised by gardeners, the constant stirring of the soil, the incorporation with the soil of gritty material, all serve among other things to supply plenty of air to the roots of plants.

There is evidence that this abundant supply of air is beneficial in numerous ways. Firstly, of course, because roots, like all other parts of plants, require oxygen for their growth. It is a commonplace experiment to place seeds of Barley in water and to observe that if the water be stagnant but poor growth occurs, whereas if it be kept running the Barley develops for a time quite normally as a submerged plant. Secondly, a constant circulation of air allows of the escape of the carbon-dioxide given off by the roots. Here, again, it appears to be well-established that an excess of carbon-dioxide in the soil results in a check to the growth of roots. Indeed, roots seem to be peculiarly susceptible to injury from carbon-dioxide: for example, if the soil space contains too much of this gas the roots fail to perform the normal growth movements and curvatures which enable them to find their way about the soil.

Thirdly, it cannot be doubted but that a good supply of air favours the activity of beneficent soil bacteria. As gardeners, therefore, we may continue to cultivate our soils deeply and assiduously with the satisfaction of knowing that, as Whistler said of Nature that she was "creeping up to Art"—so the art of Agriculture is creeping up to that of Horticulture.

It is, of course, evident that deep cultivation has other advantages as well as that of providing "root ventilation." It increases the water-holding capacity of the soil, improves drainage, and helps to liberate larger stores of plant food. Anything, therefore, which helps to induce the agriculturist to practise more widely a system of deep tillage is bound to be to his benefit and to the benefit of the world at large.—*The Gardeners' Chronicle*.

COFFEE.**The Coffee Embargo.****LONDON PAPER'S STRONG CRITICISM.**

The recent embargo on the importation of coffee, says the *Morning Post*, threatens most serious consequences for India. The coffee crop was about to be shipped as usual from the open roadstead of Mangalore, which is impossible after May owing to the monsoon. Owing to the same cause, if the crop remains in India it will be ruined, and as London is the only market, the planters are faced with the total destruction of their industry, for this blow comes on top of two bad seasons. The bankers are refusing advances owing to the prohibition, and without capital the gardens will fall back into jungle. We are certain that the Imperial Government did not realise these consequences when the prohibition was imposed, and that the necessary licenses will be granted to save an important British Empire industry from total ruin. It was stated a few days ago that the Secretary of State for India is in communication with the Board of Trade on the subject, and a further question is to be put by Sir John Rees before the House of Commons adjourns for the Easter recess.

The planters are under contract with shipowners to have the coffee collected and delivered at the port of shipment. It is there now, and the anomalous position has arisen that while the shipowners by their contract are bound to ship, the planters by the prohibition order are forbidden to deliver the goods. They cannot get their money and the whole future of Mysore is gravely imperilled. It may conceivably happen that the steamers reserved for the trade will have to return home empty.

Mr. Austen Chamberlain has proved himself a friend of India, and it is difficult to believe that he will allow this injustice to be perpetrated, more especially as the tonnage required is small and already is in reservation. Moreover something in the nature of a preference is being given to South American coffee, which arrived in England in large quantities before the prohibition was decreed. Most of this coffee is held to German account, and, indeed, before the war it was usually shipped to Germany direct. One of the reasons which is supposed to have influenced the making of the Order was the allegation, that the supply of coffee in the markets of the United Kingdom is adequate. This takes no cognisance of the fact that the coffee grown in South America is largely under German "influence," and is not consumed in this country. In any case, no sound reason has yet been advanced for threatening the ruin of an important British Indian industry.

In a leading article, the same journal says: "This is by no means the only example of the neutral being favoured as against our own people. Only the other day we pointed out that the policy of the Sugar Commission was supporting Java and Cuba against the British West Indies. We have even heard that whereas the British West Indies have been forbidden to import fertilisers, Java is to be allowed to import them. And so it comes to this that neutral countries, largely financed by German capital, are given a preference over British Colonies. Now we do not desire to allege anything against the Sugar Commission. We believe that with one exception none of its members understood anything at all about sugar, and they entrusted their buying to those two excellent firms, Tolme and Runge and Czarnikow. We will confess quite frankly that we do not understand the policy which helps neutral markets and injures our own. We are reduced to hoping that there is, in fact, no policy in the matter, but that it is all the result of chance. But it requires a growing amount of charity to accept this explanation and even if it be true, it only adds emphasis to the need for a well-considered national policy based not upon the accidents of trade but upon the support of British industries.—*Madras Mail*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 20.]

MAY 19, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

The Deputy Director of Agriculture wishes to call the attention of planters to the necessity of addressing letters and parcels to him plainly by his full title and address, *viz.* the Deputy Director of Agriculture, Planting Districts, 25, South Parade, Bangalore. If letters are merely addressed to the Deputy Director of Agriculture, Bangalore, they frequently go to the Deputy Director of Agriculture, Mysore Agricultural Department, and not only is there delay in consequence, but that officer is given unnecessary trouble.

The Fluted Scale in Ceylon.

The Acting Entomologist in Ceylon has recently called attention to a new pest, known as the "Fluted Scale," or scientifically as *Icerya Purchensi*, which is a serious pest of *Acacia* and *Citrus* trees in California and Australia. In the former country this scale did so much damage in 1888 that the fruit industry was threatened with destruction.

The Scale was probably introduced into Ceylon in or about 1915 on *Acacia* from Australia. Its history in Ceylon according to the *Ceylon Observer* is as follows:—The pest was discovered first in 1915 on *Acacia decurrens* on an estate in the Agrapatnas. Soon after it was reported on another estate in the same district on *Acacia* and at Peradeniya was found on *Casuarinas*, one being badly attacked. In August 1916 it was discovered in enormous numbers on an *Acacia* forest at Ambawela and in October it had increased on the Agrapatnas estate where it was now attacking *Acacia dealbata* as well as *decurrens*. *Acacias* at Galaha and Upper Hewaheta were subsequently found to be infected as well as a *Citrus* tree.

The Scale is capable of spreading very rapidly and it is very hardy and easily distributed and will attack other plants besides those mentioned. During the monsoon it is kept in check to some extent by a parasitic fungus and it is also attacked by lady bird beetles and a few insect parasites. In Australia and California these have been used to control it.

The Acting Entomologist hopes to be able to exterminate this new pest before it spreads further as at present it is fairly localised. At present the scale is supposed not to be present in India but a watch should be kept for it and *Acacia* and *Citrus* plants should not be imported from infected

districts in Ceylon. The scale is of a large size and easily recognised. This is an interesting example of how an insect pest can be introduced from one country to another and is another argument, if more are needed, in favour of legislation to prevent the introduction of plant pests and diseases from outside.

Ohlendorff Guano.

We note from the last issue to hand of *Tropical Life* that the London branch of Ohlendorff's Guano Works has been bought by an English Company and the Public Trustee has sanctioned the final transfer of the entire concern to the new Company which is now styled The Anglo-Continental Guano Works, Ltd., as from 1st January, 1917. Planters who have dealt with this material in the past may therefore safely continue to do so.

Nitrolim.

The Nitrogen Fertiliser Companies are advertising the fact that they are unable to supply any Nitrolim for agricultural purposes for the season 1916—17. They state that the demand for the product is so insistent that they are obliged to allocate the whole of their output during the continuance of the war, and they say that they feel sure that their customers will all agree that the vital and immediate necessities of the Allies must take precedence of all other demands, and that the diversion of Nitrolim from the needs of agriculture to the war requirements of the Allies will meet with approval.

We hear from time to time of rumours of projects for manufacturing Nitrolim in this country and making use of water power which at present runs to waste. Nitrolim has undoubtedly found favour with planters to a certain extent and did experiments show that it was of value for staple crops like Sugar or Paddy there would be a big opening for any such project. Now that the fertiliser cannot be obtained from abroad would seem to be the time to push any such scheme forward.

Value of Seed Selection.

The extent to which the productiveness of such a crop as Maize can be improved by continued selection of seed is illustrated by the results of work done in America. For fourteen seasons the yields of ten acre fields of Maize planted on a 3,000 acre farm in Ohio with seed selected from the Agricultural Department Co-operative improvement plots have been contrasted with the farm yields of the same varieties of Maize from seed sown in the ordinary way and grown under identical conditions as regards cultivation. During the first seven year period the fields planted with the selected seed yielded 13·3 bushels per acre more than the farm fields, while for the second seven years the increase averaged 21·8 bushels per acre more.

In the case of an annual crop like Maize results can be obtained more quickly than with a more permanent crop, because more selections are obtained, but this shows what can be done by careful selection of seed and how important the matter is. In the case of plantation crops seed should be selected as carefully as possible in the first place, and this should be followed by a careful selection in the nursery. No plant which is weakly, badly grown, or not up to type should be put out in the field.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.**Central Travancore Planters' Association.**

Proceedings of the First Quarterly General Meeting held at the Medical Fund Bungalow on the 3rd May, 1917 at 11 a. m.

PRESENT.—Messrs. J. S. Wilkie (Chairman) W. F. Stephen (Honorary Secretary) T. C. Forbes, J. M. Wilkie, R. Tait, Dr. McCormack, A. H. Gerrard and by *Proxy* W. A. Asher.

1. MINUTES OF LAST MEETING were taken as read, and confirmed.

2. SRI-MULLAM DELEGATE'S REPORT.—Was read by our Delegate Mr. R. Tait, and a vote of thanks proposed by Mr. J. S. Wilkie accorded him.

8. CORRESPONDENCE.—Read letter from Mr. Bissett, and Mr. Sinclair notifying withdrawal from the Association of their respective Estates and the Honorary Secretary was asked to acknowledge same.

Read letter from the Honorable Mr. Barber and copy of relative letter from Collector of Customs, Madras R. B. G. No. 494 of 14. 12. 16.

The Honorary Secretary was asked to reply pointing out that the latest excise order has not been in operation for a sufficient period to enable members to form an opinion as to its working.

INDIAN TEA CESS, PROPOSED RENEWAL OF.—Proposed by Mr. T. C. Forbes and seconded by Mr. R. Tait that this Association agrees to the extension of the Indian Tea Cess Act of 1903 for a further period of Five years to 31st March 1923.

This Association would also point out that Ceylon unduly benefits by this Cess, and that a reciprocal duty should be levied on all Ceylon teas imported into India.

TEA RESTRICTION.—Read correspondence relative to, and it was realized every thing was being done by the Chairman U. P. A. S. I. and Planting Member in Council, and it is hoped Government's policy will be defined at an early date as the existing conditions make it impossible to arrange for finance, Labour and work.

A vote of thanks to the Chairman proposed by Mr. R. Tait and seconded by Mr. T. C. Forbes terminated the Meeting.

(Signed) J. S. WILKIE,
Chairman.

(„) W. F. STEPHEN.
Honorary Secretary.

THE TEA CONTROL.**COMPLETE STATEMENT OF TERMS DEMANDED.**

There is a strong feeling, says the *Times* city editor, that the terms of the agreement arrived at between the Food Controller and the tea producers will not work with smoothness and efficiency, unless and until a complete statement of the terms is issued under the authority of the Food Controller. The essence of the scheme is that 40 per cent. of the imports of Indian and Ceylon teas into this country shall be supplied to the trade at a shilling a pound, but while this sounds simple enough many important points arise as between importers and the original buyers and subsequent sellers, and buyers in respect of contracts already made at varying prices and condition. It is in order to make binding on all concerned in the trade both in this country and the East the methods decided upon for dealing with such cases, that an official and public statement is considered to be required.—*Madras Mail*.

CORRESPONDENCE.

Daverashola Estate,

Devarshola P. O., Nilgiris,

8th April, 1917.

THE HON'BLE MR. E. F. BARBER,

Ootacamund.

Restrictions of Tea Shipment.

Dear Sir,—Mr. J. B. Cook writes as follows :—

"Is any action being taken by the U. P. A. S. I. in regard to the new restriction of tea shipments?"

"It is the manner in which the authorities propose to enforce the rule that is the reason for this letter.

"The Coast Agents informed me that the authorities had restricted the shipments by about 30% less than the average we have shipped during the last three years.

"It was not clear to the Coast Agents whether this was to be worked on the yearly or monthly average. They communicated with the authorities and the Customs have agreed to allow shipping 3 monthly allotments in one month if necessary.

"This seems to me a satisfactory arrangement, and we have to thank the Coast Agents for it.

"Another question has arisen—a very serious one. The Customs say that the new rule came into force on the 27th February. If this is to be so, it will give some tea planters a very nasty knock. Some Estates had about 4 months make of tea lying at port of shipment before the 27th February. If all this 4 months make is to be shipped under the new restriction, it means that these unfortunate estates cannot ship any further tea for another 6 months or more. I expect there are many men have had their Tea waiting at various ports for some months before the 27th ultimo, and should the new rule be enforced on that Tea many will no doubt agree that it is a distinctly harsh arrangement.

"I do not suppose one of us—the times being what they are—objects to cutting down the supply by about a third: but, when some months make of tea was waiting shipment before the order came into force, it appears to be only justice that that tea should not come under the new order. I consider this is a matter the U. P. A. S. I. ought to take up, as if the order is carried out, it will mean closing down of some estates."

Mr. J. J. Murphy writes as follows :—

"I understand that the restrictions on the export of tea from India to the United Kingdom come into force immediately and that the quantity which each estate will be allowed to export is to be based on the yearly average for the 3 years ending 31st March 1916. If this is so, young Estates will suffer very severely and this point was probably never considered by Government. Here I made no Tea in 1913, in 1914, 14,557 lbs. and in 1915, 63,274 lbs. an average of 25,945 lbs. per annum for the three years. In 1915 I made 98,640 lbs. and this year expect 150,000 lbs., so, if I am only to be allowed to ship four-fifths of 25,945 lbs., I shall be hard it, and there are, I suppose, numerous young estates in a similar position to mine. No one can complain of Government's efforts to utilise all available tonnage in the best way possible to keep the United Kingdom

in essential supplies of food stuffs and war material, but there is no good reason why proprietors of young estates should suffer more than owners of long established gardens. I shall be glad to learn what the U. P. A. S. I. is doing about this."

I feel—that whilst admitting the harshness of the order complained of by Mr. Cook, it will be a hard one to overcome, and it is one, we must all suffer from alike. Some may not be in the position of Mr. Cook, and I cannot understand why he has not had an opportunity of shipping since November. I recognise Government must fix a date, on which operations should come into force, but I fail to recognise why that order should predate it.

Mr. J. J. Murphy's complaint I feel is the greater one, but I feel one even greater than that, is those gardens who are going to produce this season for the first time.

There might be ways by which the questions might be satisfactorily settled:

1st—Government to fix a total number of lbs. that might be shipped from Southern India in a fixed period.

2nd—That all producers be called on for crop estimates.

3rd—That all Estates with Tea 6 years old and over on 1st January 1917 be considered in full bearing and their average to be judged from the total crops for Calendar years 1914, 1915, 1916.

4th—That all Estates or acreages planted subsequent to 31st December 1914 be not considered.

5th—That all Estates or acreages planted previously to the 31st December 1914 and subsequently to the 31st December 1913 be allowed to put in Estimates on a justified sliding scale.

It might mean Government further restriction on export, but we want it to be fair to all and no man wants to get a bulge on his neighbour.

I believe everyone would abide and agree to the estimate basis from producers, but they would have to be examined and carefully analyzed by a competent body of men.

The suggestions made by me are only to start a line of thought. I should be obliged if you would find out how Government is likely to deal with any suggestion that would have as its aim "JUSTICE to all Tea producers."

Yours faithfully,

(Sd.) J. S. NICOLLS,

Chairman, U. P. A. S. I.

Ootacamund, 8th April, 1917.

Limitations of Tea Imports into United Kingdom.

My dear Gilman,—In regard to our conversation last Thursday.

I understand that the allotment allowed to the Madras Presidency is 13,200,000 lbs. per annum on an average of 1,100,000 lbs. per month.

I take it that the allotment is held by the Madras Government in trust for the producers and that it is your wish that it shall be distributed as fairly as possible.

Theoretically the distribution to the various agents at the different ports is a fair way but I understand that it leaves a good deal to be desired, and I wish to put the following points forward.

1. The allotment has not been distributed to the producers agent and I have proof that it is not being used quite fairly in all cases.

2. The distribution of the allotment on an entirely arithmetical basis is not fair.

Young estates with increasing yields will not get a share in proportion to their production, while estates that have just come into bearing will get no allotment at all.

3. The distribution entirely excludes teas that have hitherto been shipped *via* Ceylon.

Many estates were selling in Colombo and when that market closed they began to ship to London and in some cases, I am told, they have entered into forward contracts in London.

This tea will not come under the Ceylon allotment for, I understand, that not only will Ceylon refuse to ship Indian teas to London but also that she proposes to dump surplus for absorption in India.

4. Some Estates have no Factories of their own. They have been selling their leaf to Estates with Factories, but now owing to restrictions, some Estates who have Factories are refusing to buy from their neighbours without Factories, thereby hoping to secure a rather larger share of the allotment than they would be entitled to on their own production only.

5. Anything that may restrict the choice of his agent by the planter is objectionable. If a planter leaves one agent, is his share automatically transferred to the agent he wishes to employ?

6. The distribution of the allotment on a monthly average is not quite workable.

Madras has a monthly share, but I believe I am right in saying that Madras exports very little tea except in the monsoon months.

I would suggest that the Chairman of the United Planters' Association of Southern India might be appointed by the Government to work with Mr. Eccles to arrange a fair distribution on a proper basis. He would be in a position to work with Committees in each district for distribution among the different estates. I shall be glad to know if this suggestion is acceptable to you.

Apart from this the position in regard to March shipments calls for attention.

During January and February tonnage was very short of requirements and a great deal of Tea was awaiting shipment at Tuticorin and the West Coast ports. During March several steamers called and heavy shipments were made.

It was at first understood that these shipments were not counted under the allotment, but I am told they are so to be counted and the result of this is that in some cases 3 months of allotment have been taken up by last year's tea, so that only very small shipment can be made between now and June,

Yours sincerely,
(Sd.) E. F. BARBER.

THE HON'BLE MR. H. F. W. GILMAN, I.C.S.,
Madras.

From P. ECCLES, ESQ., B.A., I.C.S.,
Offg. Collector of Customs,
Madras,

To
THE CHAIRMAN,
United Planters' Association, Southern India,
Malabar Club, Calicut.

Custom House, Madras,
4th May, 1917.

Sir,—With reference to our discussion of yesterday regarding shipments of tea to the United Kingdom, I have the honour to say that I have written to the shippers who have shipped tea to the United Kingdom in the years 1914-15, 1915-16 and 1916-17 requesting them to let me know as soon as possible (if possible within 10 days) the amount of tea which they shipped to the United Kingdom on behalf of each estate in those years.

2. I hope, when this information is received, to be able to make proposals for revising the provisional allotments granted to shippers and I should then be glad of a further opportunity of discussing them with you and others (including shippers) interested. Possibly if I were to come to Calicut at some date to be fixed later, it would be a convenient meeting place.

I have the honour to be,
Sir,
Your most obedient servant,

(Sd.) P. ECCLES,
Offg. Collector of Customs.

Daverashola Estate,
Devarashola P. O., Nilgiris,
9th May, 1917.

To
THE COLLECTOR OF CUSTOMS, MADRAS.

Sir,—Referring to our interview in Madras, I make the following suggestions as to how individual allotments might be arrived at.

A.—Estates with tea 6 years old and over on 1st January, 1917 be considered in full bearing and that the average crop for the last 3 calendar years be taken.

B.—Estates or acreage planted previously to 31st December, 1913 and subsequently to 31st December, 1910. The average for the last two calendar years be taken.

That 5% of the total shipping allotment be set aside to meet any instances which do not come within these two classes.

That in all cases the percentage of allotment to total crop be taken.

I do not know if my views would meet those of the planting community. It would be impossible to make distribution absolutely exact to all.

I am,

Yours obediently,

(Sd.) J. S. NICOLLS,

Chairman, U. P. A. S. I.

Daverashola Estate,

Devarashola P. O., Nilgiris,

12th May, 1917.

THE SECRETARY, U. P. A. S. I.,

Bangalore.

Export of Tea.

Dear Sir,—I had an interview with the Collector of Customs on the 3rd instant at Madras and I can assure my brother planters that he fully recognises the difficulties they have had to face, and I personally thank him for the sympathetic ear he gave to me when listening to our grievances, and offering to meet us all in Calicut to further discuss the matter.

We shall have to come to some agreement amongst ourselves, and a settlement will only be obtained by mutual confidence as to how individual allotment shall be arrived at this year.

The old estate in full bearing is alright, but the young estate coming into bearing, perhaps its second or third year, and the estate that is coming into bearing for the first time this year are points we must consider with an open mind.

I have put forward a suggestion to the Collector of Customs in mine of 9th instant, and there may be better ways of overcoming the difficulties, and I hope some scheme will be arrived at by the time Mr. Eccles will meet us at Calicut, I expect towards the end of this month.

Two schemes that have been sent me are :

No. 1. 9 years old on 1st January, 1917—Average crop for 1914, 15, 16.

8 years old on 1st January, 1917—Average crop of 1915, 16.

7 years old on 1st January, 1917—1916 crop.

Younger tea estimate on a sliding scale.

No. 2. Pooling the whole crop.

Immaterial what estate tea is shipped, that the proceeds be divided proportionately among crops, the surplus which could not be shipped would be handed over to some organisation in this country for disposal and here again the proceeds would have to be divided on the years crops.

Yours faithfully,

(Sd.) J. S. NICOLLS,

Chairman, U. P. A. S. I.

RUBBER GROWERS' ASSOCIATION.**CHAIRMAN'S SPEECH, 1917.**

I have to move the adoption of the Report and Accounts which I shall, with your permission, take as read, and in accordance with precedent I propose to make some comments of a general nature upon the state of affairs disclosed and also to address myself specifically to one or two matters which appear to call for more detailed examination.

The Association has now been in being for nine years. As you are aware, it is reconstituted on a somewhat more ambitious basis towards the close of my predecessor's year of office and it has been my privilege to occupy the Chair during the first year of the new order. At the outset I confess that I found it a somewhat anxious privilege for it was scarcely possible to predicate exactly the attitude which our constituents would adopt towards the reorganised body. I am glad to say that quite early in the year it became apparent that the forward movement met with general approval and that our membership was increasing rather than diminishing. There was, it is true, some difficulty with certain of the Netherlands Indies Companies but it gives me peculiar pleasure to be able to record that after a very frank interchange of views a *modus vivendi* satisfactory to the Companies concerned, and indeed to all parties, was found and that the Association to-day represents the Rubber Producing Industry more completely than at any earlier stage in its history. Let the figures speak. At the last annual meeting our membership roll stood at 662, of which 412 were Companies and 250 Individuals. To-day we number 767 members, 489 being Companies and 278 individuals, and the cry is still "They come." A gratifying feature of the increase is that quite a number of our new members are Companies registered in the East which shows, I think, that a high value is placed upon the research and scientific work performed there and also as I venture to hope that local Companies recognise that the activities of the Association here in London conduce to the stability and prosperity of the Industry. Among our new members are also some African Companies and I rather fancy that at no very distant date we shall bring within the fold some undertakings whose local field of operation is in that part of the world which was until recently known as German East Africa.

It may be of interest also to note that we now represent an issued capital of approximately £50,000,000 as against £45,000,000 last year. This is not an adequate statement, of course, because so many of the issues stand at a considerable premium but I give it for what it is worth.

I think it may be said that the process of organisation has gone forward during the past year. Most of the detail work is now carried out by the 10 Committees appointed for various purposes and the system has worked well. Indeed, it would be quite impossible for Council in full meeting to dispose of the many questions which it wisely delegates to Committees whose members make a special study of the matters referred to them and I wish to record my keen appreciation of the readiness with which members serving upon them have placed their time and energy at the disposal of the Association. After the manner of the theological student who, when asked to name the minor prophets, replied that he must decline to draw invidious distinctions, I shall refrain from selecting any Committee for special approbation as in my judgment each one of them has given us of its best.

Our Secretary, Mr. Frank C. Smith, left us in January with the full approval of Council, to train for a commission. Mr. Smith's energy and capacity have been referred to on previous occasions from this Chair and I desire to acknowledge the great assistance he has rendered me during my year of office. That he will do himself equal credit in the new and unexpected sphere into which circumstances have forced him is the aspiration and belief of us all. He carries with him our best wishes and we hope that next year at this time he will be among us again in civilian and accustomed attire. Meanwhile Mr. A. C. Read, whose services we secured as soon as we found that we were likely to be shorthanded, is performing the duties of Secretary and although he has not, of course, the technical knowledge that Mr. Smith had acquired, he is performing those duties to the satisfaction of Council and I think we must be considered fortunate in securing a gentleman of Eastern experience and business training to see us through.

ACCOUNTS.

I now pass to the accounts upon which there is little to say. The financial position is satisfactory and our revenue should enable us to meet the increased expenditure which will be necessary in connection with research and scientific work in the East when we happily reach normal times again and are in a position to undertake developments. The item shown as a disbursement in respect of the Excess Profits Duty appeal is heavy but not, I am bound to say, heavier than I anticipated. The interests involved were great and we were bound to secure the best professional advice and assistance obtainable and that is notoriously an expensive matter. But if you divide the total figure among all the signatories to the appeal it works out at under £10 per Company and looked at in that manner the item is not so alarming as it might at first sight appear.

LOCAL COMMITTEES.

My predecessor referred last year to the formation of local Committees in Malaya, Ceylon and Southern India. It is perhaps well to note that a year's working has entirely justified the appointment of these Committees and that we have received a great deal of very useful information from them. I anticipate that as time goes forward and developments take place in the East they will become increasingly valuable.

RESEARCH.

As I indicated when dealing with the accounts it is proposed as soon as circumstances permit and we return to happier times to develop this branch of the Association's operations. Members will understand that extension is quite impossible at the present juncture for the simple and sufficient reason that men are unobtainable. At the same time it is to be recorded that the work is being carried on in the face of those considerable difficulties caused by the state of war with which we are all so familiar that I need not detail them. The thanks of all of us are due to those who are now carrying on under difficulties and doing work which I have every reason to believe is highly appreciated by the planting community on the spot. The periodical reports of the scientific staff are circulated regularly and are of very great interest.

THE NETHERLANDS INDIES.

During the year the possibilities suggested by the contemplated imposition of a War Profits Duty by the Dutch Government together with certain other factors suggested the reincarnation of the former Committee which was specially charged with the duty of investigating matters peculiar to the Netherlands Indies. Historical students have assured me that this

Committee existed years ago, became comatose, then moribund, and finally ceased to exist without so much as a passing bell to mark its demise. If that were so I think we may safely infer that it died of ennui because it found nothing for it to do. But other times, other manners, and the new Committee will certainly not have to complain that it is unable to find matters for deliberation. On the contrary I think its embarrassment will be to decide which particular problem shall be tackled next. Nor if I know anything of human nature will it be found lacking either in energy or enterprise. The Committee is a strong one, it was elected on a democratic basis, and it should, and I am of opinion that it will, do much useful work in the future. I recently had the pleasure of nominating its Chairman, Mr. F. A. Roberts, to a vacant seat on Council and his name is before us for formal confirmation to-day.

RUBBER TRADE ASSOCIATION OF LONDON.

Your delegates to the Executive Committee of the Rubber Trade Association have continued to work in close and cordial co-operation with that body to the mutual advantage, I conceive, of both parties. Speaking for myself I have found the duty of attending the Committee a profitable and interesting one and if I have on occasion been tempted to murmur "*quot homines tot sententiae*" it is because of the complex and perplexing nature of the problems which are not infrequently submitted for discussion. In the result, if I may say so, it has almost invariably appeared to me that decisions marked by sound common sense have been arrived at and I am very certain that the activities of the Committee form an indispensable element in the smooth working of the trade.

WAR RELIEF FUND (MALAYA).

Supplementing the reference to the War Relief Fund which is to be found in the Report, I desire to say that your representatives have attended regularly the meetings of the joint Committee administering the fund held during the year. A considerable number of cases have been dealt with and temporary relief supplied. The assistance afforded has been, it is believed of the utmost value to the applicants, several of whom were in very pressing need. The amount thus dispensed has not been up to the present large but it must be remembered that in many instances periodical grants will be necessary and that it is quite impossible to forecast the number of applications which the belligerent operations of the present year will produce. Audited accounts are periodically presented to your Council.

EXCESS PROFITS DUTY.

I now come to the question of Excess Profits Duty—"the brain fever bird" as it is expressively termed in one large secretarial office with which I am acquainted—and I desire to dispose of one misconception at the outset. It has been said that this matter was dealt with by a small junta which acted more or less of its own sweet will and did not adequately represent the various interests concerned. This is the sort of thing that is easily said and therefore tolerably certain to be said. But things that are easily said are often ridiculously incorrect. Turn if you will to the panel of the Emergency Committee which has dealt with this problem from the beginning and you will see that it is a widely representative one and you will find on it the names of gentlemen representing interests which have suffered a close approximation to financial martyrdom at the hands of the Taxing Authorities. Further than this the Committee, following the usual practice of the Association, reported fully to Council month by month and took no step without first obtaining its approval and sanction after full discussion.

You know the result of our Application to the Board of Referees and you know that such result was very much less satisfactory than most of us hoped. I can only say this; we retained the very best advice that was to be had and, in my opinion, we were extremely well served both in the preparation of the case and in its presentation. I do not think that the result did even that rough and ready justice which we were led to anticipate that we should receive, but I am not so ungenerous as to blame our advisers for that. We secured a concession, of course, but not an adequate one and the provisions of the Act of Parliament prevented us from taking the matter further, the decision of the Board not being subject to appeal.

I think I can usefully say a word or two on points which appear to have been somewhat misunderstood. We have been criticized for asking as much as 25% and it has been suggested that if we had asked for less we should have got more than we did. Gentlemen, I am not clairvoyant, and I cannot say definitely, nor can anyone else, whether we should or should not, but merely as a matter of opinion I should say that we should not, and I am very certain that if we had asked for less we should have been blamed for not asking for more and told that if we had done so we should have got a more favourable rate than we did obtain. But the fact is that we asked for what our figures showed and as we were presenting figures to the tribunal I think we had to frame our claim on the basis of those figures. It is worthy of note that we received a variety of letters contending that we were not asking for enough and that the only alternative scheme before the Board asked for rather more. The moral is that one can't please everybody.

Then there is the question of the flat rate. It is said that a flat rate works very great inequity amongst the young producers and that some sort of a sliding scale would have been fairer. I agree. But the difficulty is this. You have an act of Parliament to deal with and that Act provides a flat rate which it makes susceptible of increase by the proper tribunal, but it does not provide machinery for other modification. We toyed with various devices for dealing with the questions on the basis of some sort of a sliding scale only to abandon them because we came to the conclusion that they could not be brought within the four corners of the Act and that it would, therefore, be useless to put them forward. That this decision was sound is, I think, demonstrated by the rate which befell the Edinburgh scheme. This scheme which was a peculiarly ingenious one and which received a good deal of favourable comment from various quarters was ruled out by the Referees without hesitation on the ground that whatever its academic merit might be it was not one which they had power to adopt.

(To be Continued.)

Ootacamund, 18—5—1917.

THE EDITOR,

Planters' Chronicle.

Second Lieut. Geoffrey William Church of East Kents Regiment formerly Superintendent of Thiashola Estate and Honorary Secretary Nilgiri Planters' Association has won Military Cross.

BARBER.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	60,684	8	2
Mr. A. J. Wright	.. ...	20	0	0
Total Rs...		60,704	8	2

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 21.]

MAY 26, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

In view of the serious financial position facing planters the Chairman has decided to call a meeting at the Connemara Hotel, Madras, on Wednesday, May 30th, to discuss the situation, with a view to approach the Imperial Government to release money at Home to continue the cultivation of estates. He earnestly hopes that the meeting will be well attended by those who are interested in the Planting Industries of Southern India.

The Scientific Department publishes an article on Abnormal Leaf-fall of Rubber. "It is interesting to note that the Planting Gazette issues an appeal to all Rubber planters to adopt just those very precautions that are being carried out on these Experimental plots."

It is more than ever apparent in the article on Diseases of Rubber how vitally necessary it is to secure the whole time services of a Mycologist. There is an interesting para. on Lantana control.

We publish the Minutes of the Extraordinary General Meeting of the Anamalai Planters' Association.

We publish our weekly article on Markets, Prices and Statistics.

In this issue we conclude the very interesting speech of the Chairman of the Rubber Growers' Association.

From the *Tropical Agriculturist* we extract Mr. T. Petch's leaflet on Black Rot Disease of Tea in Ceylon.

We are indebted to Mr. Chas. E. Brown for the Rainfall figures on Carolina Tea Estate, Coonoor, for 8 years.

We believe that we may congratulate coffee planters on the permission accorded them to export 50% of the remainder of their crop. The question arises has the sanction come too late to ship from West Coast Ports? We hope that many have availed themselves of the sanction.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	60,704	8	2
Mr. H. Waddington	30	0	0
Total Rs...	60,734	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

Abnormal Leaf-fall of Rubber.

The Government Mycologist and the Deputy Director of Agriculture, Planting Districts, made a tour of the Rubber on the West Coast during April and inspected the four Experiment Plots of one hundred acres each on which a method of control for the abnormal leaf-fall is being tried. The methods of control adopted experimentally on these Plots were described in detail in the recent issue of the *Planters' Chronicle* (Vol. XII p. 54). The first part of the work, the removal of dead branches and their destruction, and the cleaning up of the plots, was far advanced and was inspected. The second part, the attempted removal of the seed, will be undertaken during May and June when the pods are big enough to be easily seen. The cost of the operations is heavy but if the leaf-fall is checked the expenditure will be justified. Moreover it must be borne in mind that the expenditure in the first year will be by far the heaviest. Next year there will be less dead wood to remove, and if the methods of control are successful, in each succeeding year still less, so that the expenditure is a decreasing one like that of weeding, for instance, and should be considered over a period of years rather than one only.

It is interesting to note that in *The Planting Gazette* (V.2.) the Mycological division of the Ceylon Agricultural Department issues an appeal to all Rubber planters to adopt just these very precautions that are being carried out on these Experiment Plots. They desire to call the attention "of all Rubber planters to the urgent necessity of removing from their trees" "all dead branches and the dead diseased fruits of the last year's crop, in" "order to lessen the chances of another outbreak of leaf and pod disease" "this year. It has been shown that the fungus which causes the leaf fall" "lives through the dry weather in branches which have partly died back," "and that resting spores are formed in the diseased pods. Now that the" "trees are in new leaf there is no difficulty in distinguishing between dead" "and living branches, and the work of cutting off the dead branches" "should be put in hand at once before the rains. Branches which have" "died back to the main stem should be pruned off close to the stem, and" "the wound tarred. Those which have died back for only part of their" "length should be cut off behind the dead part with a few inches of" "sound tissue if possible. All prunings should be removed and burned."

This is the very advice we have been giving and we heartily endorse its *urgent necessity*. We found that the best way to get rid of the dead and infected material cut off was to collect it into heaps of convenient size and to open pits alongside these heaps. The ground was then swept to collect small material and dead pods and rotting seeds and the sweepings were added to the heaps. These heaps were then burned, the fires being controlled by throwing earth on them if necessary, and finally the ashes and charred material was swept into the pit alongside and buried.

Diseases of Rubber.

We heartily endorse the opinions expressed in the following extract from *The India Rubber Journal* (Vol. LIII, No. 12) and thoroughly agree that insufficient attention is being paid to this matter:—

"We believe that diseases will become more prominent in subsequent" "years except special efforts are made to combat them. In the monthly"

"report of crops issued some time ago, reference was made by one company to the ravages of disease, and the necessity of stopping tapping in consequence thereof. We now find in the annual report of the Rangoon Para Rubber Company that diseases have been causing considerable trouble. The following is a very frank statement extracted from the report:—'Notwithstanding measures taken with the object of combatting the Black Thread disease, the planted area was again attacked during the year under review. The number of trees affected was, however, very considerably less than in the previous year. Tapping operations were only suspended over one sixth of the trees in tapping, compared with over one third in 1915, but owing to the prolongation of the wet season the effects of the disease were felt over a long period.'"

"We think that shareholders should be more fully informed on the subject of diseases and pests than has been customary in past years." "It is as well that all the interests of our industry should bear this factor in mind. While we believe that the moist, hot atmosphere prevailing in rubber areas will make it easy for parasitic fungi to spread, we are convinced that if proper precautions are taken the damage done will be small. The rubber plantation industry has not yet realised the danger ahead, and it should be possible to secure considerable sums of money from everyone interested in plantation rubber to protect this magnificent national asset."

As we have pointed out before what is needed is a Mycologist who can devote the whole of his time to the study of the fungoid diseases of plantation crops. The planters owe a debt of gratitude to Mr. McKae, the Government Mycologist, for the work that he has done, but he is only able to devote a limited amount of his time to this work, and undertake the study of a few diseases. There is ample work in Rubber alone to occupy the whole time of one man. Not only is there abnormal leaf-fall causing loss, but the attendant bark rot, canker, pink disease, and root diseases all take their toll of trees. While the trees are planted closely the loss of one tree here and there does not so much matter, but as they are thinned out this loss becomes of ever greater importance. Remedies for the above diseases are not known, and methods of control recommended are incomplete and more or less of the nature of guesses. This is all that can be done by an Officer who is only able to visit each district occasionally and for a very short period at a time. What is wanted is a man to sit down on the spot and work out the life histories of the fungi which cause these diseases, to discover the source of infection, the method of infection, the resting stage, and so on. Methods of control could then be devised with some certainty.

At a recent meeting of the Mundakayam Planters' Association the idea of getting a Mycologist specially for Rubber districts was seriously discussed. We hope that this will take practical effect. A good salary should be offered so as to attract a good man with experience and induce him to stay. He would need quarters, a laboratory, and two Indian Assistants, and the expenditure of a very considerable amount of money on such an establishment would be amply repaid were even one of the diseases mentioned above brought under control. As our contemporary says, were the shareholders fully alive to the dangers and possibilities for harm which exist in these Rubber diseases such money should be forthcoming, and the future of the industry insured against evil days.

Lantana control.

Lantana has proved itself a troublesome weed in a number of countries, the Sandwich Islands, New Caledonia, Fiji, and Honolulu amongst others. In South India it has over-run large areas, spoiling the grazing and forming a harbourage to pigs. From the planter's point of view Lantana is rather a beneficial weed than otherwise; he can easily keep it out of his cultivation which is regularly weeded, and on unplanted land it forms an excellent cover which protects the soil from wash and at the same time adds to its fertility by depositing a rich layer of humus derived from the fallen leaves. Moreover it contains a very high proportion of Potash in its ash derived to a great extent from the deeper layers of soil reached by its roots. An analysis made by Dr. Lehmann showed that Lantana Ash contained as much Potash as Kainit, a total of 15.75. Unfortunately the leaves, twigs, and branches only yield about 2% of ash.

To the ryot however it is undoubtedly a pest and it is apt to be troublesome in the forest though its relation to Sandal has not yet been definitely determined, and attempts have been made to control its spread and even to exterminate it, more especially in Coorg. In Mexico, where Lantana is indigenous, it is attacked by a small fly which lays its eggs in the young berry and the resulting larva eats the berry and thus kills the seed and checks the spread of the bush. This fly was introduced into Honolulu with excellent results, and it was then introduced into New Caledonia and Fiji. The latest country to try this experiment is Queensland where a large number of flies from Fiji and Honolulu have been liberated.

Before such a check on the growth and spread of Lantana could be tried with safety in South India it would have to be ascertained with certainty that the fly will not attack other crops besides Lantana. It is possible for instance that it might devote its attention to Coffee berries and cause more damage to a staple crop of this kind than the Lantana does.

During his visit to Coorg in 1913 in connection with the question of Bees and the pollination of Coffee, Mr. Bainbrigge Fletcher, the Imperial Entomologist discovered an insect attacking the fruits of Lantana in much the same way that this fly in Mexico does. He thus records it in his report (*P. C. VIII. p. 61.*) "Lantana was freely attacked by a small "Plume moth (*Platyptilia pusillidaetyla*) whose larva bores into and "practically destroys the young seed head, so that an attacked seed head "bears only three or four weakly looking fruits, whereas a normal "unattacked head may bear fifteen or sixteen plump healthy fruits. A few "caterpillars cut the leaves, but such do practically nothing to check the "growth of a plant like Lantana, whereas this little moth checks its spread "directly by limiting its power of dispersal by seeds eaten and carried by "Vertebrates."

This observation was made at Mercara but apparently the moth makes little headway with the Lantana there. We understand that an Entomological Assistant has been, or is about to be, deputed to Coorg on special duty with the object of studying the Lantana question in all its details, and no doubt he will take into consideration the possibilities of control both by means of this Plume moth and the Mexican fly.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.**Anamalai Planters' Association.**

Minutes of an Extra-Ordinary General Meeting of the Anamalai Planters' Association, held at the Club, at 2 p.m., on May 16th, 1917.

PRESENT.—Messrs. J. Hatton Robinson (Chairman), John Carless, H. O. D. Walsh, J. O. K. Walsh, C. Fraser, J. A. R. Lloyd, John D. Brewer, D. Cooper, E. Hardy, J. H. Ireland-Jones, A. C. Cotton, J. E. Sampson, B. M. Behr, G. A. Marsh and C. R. T. Congreve (Honorary Secretary).

Messrs. E. W. Simcock and S. C. Riddell were represented by proxy.

The minutes of Extraordinary General Meeting held on the 9th April, 1917 were confirmed.

INDIAN DEFENCE ACT.—The Honorary Secretary read Circulars Nos. 14 and 16/17 from the Secretary, U. P. A. S. I.

The following resolution proposed by Mr. Fraser, and seconded by Mr. Marsh was passed unanimously :—

“That the Honorary Secretary be instructed to write to the Secretary, U. P. A. S. I., pointing out that the District is already working very short handed and that a list be submitted showing the acreage of the various estates and the men at present employed.”

With reference to the Selection Committee the following 5 gentlemen were chosen and expressed their willingness to act if required :—

J. H. Robinson.

G. A. Marsh.

B. M. Behr.

J. Carless.

C. Fraser.

WESTERN OUTLET.—The Dewan of Cochin's letters of 3rd, 4th and 14th May 1917 were read. The following resolution proposed by Mr. Scott, and seconded by Mr. Behr, was passed unanimously :—

“That the Honorary Secretary be instructed to write to the Dewan of Cochin agreeing with the terms specified in his letters of 3rd and 4th May 1917.”

With a vote of thanks to the Chair the meeting terminated.

(Signed) F. HATTON ROBINSON,

Chairman.

(„) C. R. T. CONGREVE,

Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.

Coffee.

Monthly Statistics to 31st March.

	1917.	1916.
	Tons.	Tons.
<i>East India—</i>		
Landed to 31st March	266	251
Delivered to 31st March	581	945
Stock on 31st March	452	634

Coffee of all kinds—

Stock in U. K. on 31st March	39,900	28,500
Total European Imports to 31st March ...	51,305	107,950
Total European Deliveries to 31st March ...	72,065	115,940
Total European Stock on 31st March ...	204,705	196,470
World's Visible Supply on 31st March*	574,590	519,700

*A decrease of 27,860 tons compared with a decrease of 27,415 tons last year.

Offerings at auction have been:—

	4—17 April.	Since 1st Jan.	Last Year.
East India	Nil.	2,762	6,900
Costa Rica	5,712	29,691	51,720
Other Milds	848	20,886	46,848
Brazil	1,187	53,227	23,793
Robusta	Nil.	Nil.	309
B. E. A.	656	3,902	6,675
Uganda	2,317	7,875	

Messrs T. H. Allan & Co. in their Weekly Report dated 18th April state that since the holidays the market has been easier and the offerings in auction have met with less demand. The lower grades show fairly steady prices but all good to fine kinds can only be sold at a reduction.

As regards prohibition Messrs. Allan & Co. say that still nothing definite has been decided and it is impossible to reply satisfactorily to the many questions asked by cable. In the House of Commons on the 4th April, the day before the adjournment for Easter, it was stated that in the case of East Indias the Government had decided to allow the import of "not more than 50% of the total crop, that is 2,050 tons out of the 4,100 tons which constituted the crop." It is of course evident that some mistake has been made in the figures, and this has been pointed out, but so far no further reply has been received. It looks as though it was intended to give some concession, but unless matters are arranged quickly it will be too late.

Tea.

There was an active demand at prices about $\frac{1}{2}d.$ to $1d.$ over those ruling before the holidays when the auctions were resumed after Easter.

The following prices were received for South Indian Teas at the London auction of 16th April:—

	B.O.P.	B.P.	Pek.	P.S.	Fgs.
TRAVANCORE.					
Nellikai ...	1/5 $\frac{1}{4}$	1/5	1/4 $\frac{1}{2}$	...	1/5 $\frac{1}{4}$
Bon Ami ...	1/5 $\frac{1}{2}$	1/4 $\frac{3}{4}$	1/4 $\frac{3}{4}$	...	...
Kolliekanum ...	1/6	1/5 $\frac{1}{4}$	1/4 $\frac{1}{2}$	...	...
Pasumallay ...	1/6 $\frac{3}{4}$	1/5 $\frac{1}{2}$	1/4 $\frac{3}{4}$	1/4 $\frac{1}{2}$	...
Munjamallay ...	1/5	1/5	1/4 $\frac{3}{4}$	...	...
Thengakal ...	1/6	1/5 $\frac{1}{2}$	1/4 $\frac{1}{2}$	1/4 $\frac{1}{2}$	1/5 $\frac{1}{4}$

Rubber.

The market has been very quiet and prices lower, but it closed on the night of 17th April a little steadier with more doing. Crepe 3/- to 3/- $\frac{1}{2}$, sheet 3/- to 3/- $\frac{1}{4}$.

Rubber in Malay.

The following information is extracted from the *Annual Report of the Planters' Association of Malaya*.

The total acreage under Rubber cultivation is 833,069 acres, and the amount of Rubber produced during the last few years is:—

1913.	1914.	1915.	1916.
tons.	tons.	tons.	tons.
33,641	47,006	70,214	99,063

This was distributed abroad as follows:—

Destination.	Shipped From				Total.
	Singapore.	Penang.	Malacca.	Port Swettenham.	
	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom ...	11,374	11,504	2,511	14,522	39,911
Europe ...	5,414	25	...	...	5,439
America ...	35,812	5,035	...	1,699	42,546
Australia ...	144	...	...	...	144
Canada ...	593	...	...	7	600
Japan ...	2,059	313	...	720	1,173
Total...	55,536	16,877	2,511	16,948	91,872

Export of Rubber from Java.

During the year 1916 Java almost doubled its export of Hevea Rubber. The following are the figures for 1915 and 1916, in metric tons:—

	1915.	1916.
To Great Britain ...	2,028	3,284
To United States ...	3,336	8,069
To Holland ...	1,288	1,581
To Singapore ...	451	2,001
To Japan ...	118	31
To other countries ...	91	274
Total...	7,313	13,762

R. D. A.

RUBBER GROWERS' ASSOCIATION.

CHAIRMAN'S SPEECH, 1917.

(Continued.)

Many suggestions were from time to time received from various quarters but when we came to analyse them they were either unworkable in practice or impossible in principle. A suggestion which had perhaps the merit of simplicity was that which would have imposed a levy of so much per lb. on the raw material and as that suggestion has been a good deal canvassed I propose to say a few words upon it. I preface my remarks by stating that the proposition has been discussed both by the Emergency Committee and by Council and that on the former body it found no support whatever and on the latter very little. And I would add that some of the most damaging criticism of the proposal came from members representing interests adversely affected by the present duty.

The objections to the scheme appear to me to divide themselves into three branches. First of all I think we may say with some confidence that it would not have been accepted by the Treasury and it is bad tactics for this Association to advance proposals which are tolerably certain to be turned down: you waste valuable time and you are less likely to secure favourable consideration on a subsequent occasion. Mr. McKenna when he received a deputation from this Association in October 1915 intimated very clearly that he proposed to adhere to the principle of the Excess Profits Duty and that where excess profits had been earned duty must be paid but that where no excess profits had been earned no duty would be levied. I cannot see that we are entitled to complain of this for it would obviously be an endless and impossible task to devise a succession of schemes of emergency taxation different in principle according to the circumstances and requirements of each individual industry. Bewildering as are the problems which the incidence of the Duty has created I rather fancy that special legislation varying in principle for a number of different industries would have meant confusion worse confounded. And I think that quite clearly you run a much better chance of success if you say to the Chancellor "We do not seek to escape from your duty but we do ask you to improve the machinery for its assessment so as to do more equal justice to the much harassed taxpayers whom we represent." In the one case you challenge his principle while in the other you merely ask him to arrange to apply it equitably.

The second objection is of a nature which comes home more nearly to the Rubber Growers' Association as an incorporated body formed for the purpose of advancing the interests of the Industry and of representing it as a whole and acting under a written constitution. I hold very strongly the view that it is not competent to Council even if it were sufficiently misguided to wish to do so to espouse the cause of one large section or group to the obvious detriment of any other considerable section or group. Now the argument appears to be something like this. The duty falls very heavily on shareholders in certain classes of company and is very oppressive in its incidence in a considerable number of cases: let the Association, therefore, go to the Treasury and ask that part of the burden be taken off the backs of those shareholders and transferred to the shareholders of Companies which are not within the principle of the Act in that they are not making excess profits.

Gentlemen, I ask you, how could Council with any propriety do this? You purport to represent the general interests of an industry and then, because you find that certain legislation common to the whole country hits a part of it hard, you seek to impose a burden upon another portion of the industry which is altogether outside the scope of the legislation of which you complain! I suggest to you that if Council had decided to do this

thing we should have been inundated, snowed under, with angry letters of expostulation and threats of accession and I confess to you that I should have found it quite beyond my power to frame any apt reply.

But I think the matter may be taken further and that there is much to be said for the view that not only would it have been improper for Council to deal with the matter in the proposed form but that it would also have been unjust as between the two classes of its constituents, and this is my second objection.

Consider if you will the principle behind the Excess Profits Duty. So far as one can see it must be something like this. Money was urgently required. An increase in Income Tax beyond the present extremely high rate would have embarrassed very gravely these numerous persons whose incomes are stationary or declining. The Treasury, therefore, came to the conclusion that less hardship would be worked if a proportion of the divisible profits of undertakings making more money than before the War were sequestered before distribution. The duty is an impost on shareholders and to talk of one Company being hit and another escaping betrays, I suggest to you, confusion of thought. The duty falls not on the company but on the shareholder, a part of whose dividend is sequestered if and only if his Company is making excess profits. If it is not making excess profits he is entitled to ask upon what principle an investor should be taxable because he has put his money into rubber while he would not be taxable if he had put his money into an engineering shop, and to this enquiry I have never yet encountered anyone possessed of sufficient ingenuity to frame a reply, the reason being, I imagine, that there is no reply. Moreover, it must never be forgotten that many probably a majority of the shareholders in rubber companies which do not earn excess profits bought their shares at heavy premiums, are not receiving large returns on the actual funds invested, and would have to submit to considerable capital loss if they realised to-day.

Do not let me be misunderstood. No one can defend the Excess Profits Duty scheme except as an emergency measure; in its working in every industry it penalises caution and sound finance and puts a premium on recklessness and inflation. I believe that the experiment throws upon the shareholders of certain of our Companies a greater volume of harshness and inequality than is to be found in any other industry and I have always felt that it lies upon us to do all that we can to induce the Authorities to curtail the oppressiveness and minimise the unfairness of which shareholders in those companies most justly complain. But that is one thing: it is quite another impulsively and ingenuously to dispatch a deputation to the Chancellor of the Exchequer to suggest another tax on the raw material.

Now I come to the third objection. I beg your patience and indulgence if I am lengthy but it is quite impossible to be short. Assuming for the moment that it had been just and proper to propose a general tax on rubber would it have been expedient? I submit to you that it would have been inexpedient to the last degree.

First of all, you might quite conceivably have found yourselves subject both to your duty and to your tax. The tax-gatherer the world over is an unsympathetic personage who is more easily convinced of the beauty of a new tax than of the iniquity of an existing one. But supposing, which I think extremely unlikely, that you could have got rid of Excess Profits Duty by submitting to an equivalent tax would you not have been pursuing an obviously dangerous course? It is true of the Taxing Authorities as of most other persons and bodies that appetite grows by what it feeds on and what guarantee have you that you would not have found yourselves in the ultimate result saddled in perpetuity with a tax small possibly at the outset but susceptible of increase?

As long as you are subject to Excess Profits Duty you are in line with the general body of Industry of the country and every argument for the removal of the duty enures for your benefit. If you get rid of the duty and impose one peculiar to rubber in its stead you stand alone and you take a comparatively small advantage from the urgent entreaties of Industry as a whole that its fetters may be removed. Gentlemen, I suggest to you that bad as things are they might have been made considerably worse by ill-considered and injudicious action and that it is a reasonable provision which dictates caution.

"And makes us rather bear those ills we have
Than fly to others that we know not of."

Is there nothing then to be done which can be reasonably and prudently attempted? Well—there remains this course. We can endeavour to get the injustice of the incidence of the duty mitigated. That is to say that while we remain subject to the duty, and thus in line with other branches of industry we can try and bring about a more equitable method of assessment, and it is in this direction that we have for some time been moving. It is felt on all hands that as applied to rubber producing companies a flat rate percentage under the Act of 1915 is unsatisfactory. Why not then give the Board of Referees discretion to adopt some more equitable method of arriving at a percentage standard? This course appears to meet the approval of all concerned and we are, therefore, endeavouring to get a clause incorporated in the new finance bill conferring upon the Board of Referees the necessary powers. If we succeed in getting such clause through we shall, if the new Council sanctions that course, go to the Board of Referees again and one hopes that we may get rather more favourable consideration. At all events it is to be anticipated that we shall go as a completely united body and that we shall be spared the spectacle of a three cornered duel from which the Treasury is far more likely to take profit than the tax-payer.

That is all I have to say on Excess Profits Duty. If I had been addressing you a year ago I should have preferred to give many of the considerations I have put before you an understanding but no tongue but the matter has now been so widely discussed in print that there seemed nothing to be gained by reticence and that being so it appeared to me that a very frank statement was indicated.

RUBBER AND THE WAR.

My predecessor in his address to you last year dealt somewhat fully with the astonishing number of uses to which rubber is put in the conduct of modern warfare on any large scale and I think that by now everyone appreciates the enormous importance of the material. The astonishing thing is that no one seems to have foreseen even approximately the part it was destined to play. Even so recent a convention as the much canvassed Declaration of London with its lengthy schedules of all imaginable kind of material contains but one direct reference to rubber. It is not scheduled as contraband nor as conditional contraband nor fortunately does it appear among the articles which may not be declared contraband except that rubber resins are in the last named list. The Declaration has, of course, gone by the board and I only refer to it for the purpose of making my point which is that rubber has provided one of the chief surprises of the war.

I suppose that you have all followed with interest the various and often conflicting statements of distinguished neutral travellers and journalists who have visited Germany which have from time to time appeared in the Press. These gentlemen differ considerably amongst themselves upon most matters but upon one or two they appear to be in substantial agreement and I think you will find that from a very early stage they one and all declared that Germany was short of rubber. This is a fact which I am sure gives us all peculiar and personal pleasure. And it is also of

interest to us to note that the neutral travellers who refer to the matter do not report favourably on the synthetic rubber which the ingenuity of German chemists has been able to produce. There is every possible inducement for the Central Powers to devise a satisfactory synthesis just now if it can be done and the fact that they have not been able to do so is from the point of view of the plantation industry extremely satisfactory.

I am speaking to business men, but I cannot refrain from saying that when we congratulate ourselves that a given commodity is not going in to Germany our thoughts turn instinctively to that Silent Service which is, as it appears to me, at once the most highly organised and the most efficient unit in our national life.

STATISTICS.

I shall deal briefly with statistics and shall not trouble you with many figures. To those who are anxious to go more deeply into this interesting study I may perhaps say that the Statistical Committee is always ready to afford information and that it has an unquenchable thirst for knowledge itself.

The world's output then increased in 1916 by some 27 to 28 per cent. an increase due mainly to the additional production of plantation rubber which rose by nearly 42 per cent. as compared with 1915. The approximate production of the world for 1916 was 201,598 tons of which Plantation claims no less than 152,650, Brazil 36,500 and other kinds a modest 12,448.

Of this amount the United States took 115,609 tons. Great Britain consumed 26,812 tons but we imported 75,240 tons, of which therefore, 48,428 were exported again. Of the Plantation production the United States took 85,531 tons and Great Britain imported 57,095 tons, a good deal of which was, of course, re-exported but there appear to be no figures to show what the actual consumption of plantation in this country was.

It is estimated that the value of the plantation rubber which went into the United States during the year was no less a sum than £25,000,000. At the present time when large exports to America are of first importance this figure is significant. Our commodity is an extremely valuable national asset and when one remembers that as recently as the year 1910 the total plantation production was but a paltry 8,000 tons one may, I think, describe the rapid development of the Industry as one of the romances of Commerce.

We owe a great debt of gratitude to the men in the East who despite all difficulties and a somewhat alarming shortage of assistants have supplied the world with so largely increased a crop.

The estimated world's production for 1917 is 242,000 tons, say 192,000 plantation, 37,000 Brazil, and 13,000 other, sorts.

THE FUTURE.

I shall say but little as to the future. My predecessor, like the cautious Irishman he is, declined the role of prophet and I do the same. Suffice it to say that so far demand has kept pace with supply and one hopes that it may continue to do so. But of the immediate future it is I am afraid safe to say that our difficulties must increase progressively till the end of the War. The problem of transport is a serious one; the problem of arranging for leave for men in the Tropics must before very long become acute; and there are other elements of embarrassment which it would serve no useful purpose to detail. That the difficulties and perplexities which confront us may be met and surmounted is our earnest hope and we may perhaps take heart of grace from the fact that, up to the present, we have come through far better than in the fatal month of August 1914 the most optimistic of us could have dared to anticipate.

TEA.

Black Rot Disease of Tea.

(DEPT. OF AGRICULTURE, CEYLON.—LEAFLET No. 2.)

A new disease of tea has recently appeared in two districts in the low country. In its effect on the bush, as far as it is evident to the planter, it may be regarded as a leaf disease, but the fungus which causes it is not confined to the leaves, and attempts to eradicate it by gathering and burning diseased leaves, can only result in failure.

Attention is usually drawn to the affected bushes by the blackening of the young leaves. The more tender leaves at the tops of the shoots turn black, soft and rotten. This resembles, to some extent, an attack of Grey Blight or Brown Blight on the flush, though the diseased leaves are usually softer than in the case of these two diseases and do not show the distortions which so often accompany them when they attack young leaf. It differs, however, from Grey and Brown Blight in the following particulars.

(1). Many of the affected leaves, although completely black and rotten, do not fall off, but remain hanging to the twigs. If such leaves are carefully removed from the branch it will be found that the leaf stalk is fastened to the branch by a very thin film of threads, or mycelium.

(2). If a diseased leaf comes in contact with another leaf, healthy or diseased, or with the stem, it becomes united to it by a web of fungus threads.

The chief characteristics of the disease are (1) the persistence of hanging dead leaves, and (2) the occurrence of dead leaves united in clusters of two or three, or united to the stem by mycelium.

The fungus which causes the disease consists of very fine threads which run along the stems and over the undersurface of the leaves, giving off branches which penetrate into the living tissues of the tea bush and kill them. It has been found on woody stems up to an inch in diameter, and can no doubt occur on any part of the bush above the ground. On the old stems it does not appear to cause any damage. Younger woody stems, about one-third of an inch in diameter, may show a number of small corky warts, but these may apparently result from other causes also, and are not an infallible sign of this disease. On the green stems, the fungus causes a premature hardening in the form of scaly grey-brown patches. It is not until it reaches the leaf that any serious damage can be noted.

The first sign of an attack on the young leaf is the appearance of a number of small blackish-brown or chocolate-brown spots, usually crowded together. The upper surface of the leaf appears sunken on and round the spots. These spots soon run into one another and form a patch which gradually extends over the whole leaf. Large patches are red-brown to chocolate-brown, usually mottled, becoming black when old and wet.

On older leaves, the effect may not be so general, only part of the leaf being attacked, but this no doubt depends on the weather. If the whole leaf is not involved, the diseased spots are usually large, sunken, black, or deep chocolate-brown with a blackish margin, uniformly coloured or mottled, on the upper surface, and greyish-brown, somewhat sodden on the lower. When dry, the spot is grey, and may easily be mistaken for Grey Blight.

The fungus threads run along the stem and pass to the leaves via the leaf stalk. As far as has been determined, they are confined to the undersurface of the leaf, except in cases where a diseased leaf falls on the upper side of a sound one. But even in the latter case the fungus does not appear to penetrate into the sound leaf through the upper surface. The spots may first appear at any point on the leaf, not necessarily at the stalk end as

might be expected. Frequently, the fungus accumulates in the axil of the leaf (*i. e.*, the angle between the leaf and the stem) and forms a fairly dense, white or yellowish felted cushion, while the leaf and stem are still green.

In addition to the attack on the leaf via the leaf stalk, healthy leaves may be infected by coming in contact with diseased leaves, or from diseased leaves, which fall off and adhere to those below. As far as has been observed, the fungus does not produce aerial mycelium, *i. e.*, free threads which stretch across from one leaf to another, as in the case of Horse-hair Blight.

Except when it forms cushions in the axils of the leaves, the fungus, though to a great extent external, is invisible to the naked eye and can scarcely be detected with a hand lens.

The easiest way of detecting the fungus of "Black Rot" is to remove a diseased leaf, preferably one which is completely black and rotten, very carefully from the branch. A thin film of mycelium will then be found running from the leaf to the stem, and this can sometimes be peeled off the stem for a short distance. If a shoot which bears one or two diseased leaves be placed in a closed tin box, it will be found, in about twelve hours, to have produced a quantity of greyish cobwebby mycelium. The growth of the fungus under such circumstances is extraordinarily rapid, and glass dishes in which diseased shoots are enclosed are usually filled with masses of mycelium in a few days. This indicates the possibility of a very rapid spread of the disease under suitable weather conditions, *e. g.*, a saturated atmosphere and a high temperature.

OCCURRENCE OF THE DISEASE.

The disease usually occurs in patches, scattered over the field. This would indicate an original distribution by spores, blown to different parts of the field, and a subsequent spread at each point by the growth of the mycelium and the dispersal of diseased leaves. There is every reason to believe that the fungus is an inhabitant of the Ceylon jungle and spreads from the jungle to the tea. On one infected estate, it has been found on an isolated group of jungle shrubs, on Gurukina (*Calophyllum Burmanni*) of which the clump was chiefly composed, and on Iramusu (*Hemidesmus indicus*), a climber which overran the Gurukina. There would not appear, however, to be much probability that it will prove to be confined to any particular shrub.

IDENTIFICATION OF FUNGUS.

The spores of the fungus have not yet been observed. The fructification occurs on the under side of the tea leaf in the form of a thin, white, powdery patch. Up to the present, it has only been found in those older leaves which show little or no damage; it has not been seen on the completely blackened young leaf. The fructification shows that the fungus is a *Hypochnus*, and we have adopted the name "Black Rot" for the disease because the same name is applied to a disease of coffee in Southern India which is caused by a species of *Hypochnus*. The Ceylon fungus, however, differs in several respects from the South Indian one, and is possibly a different species.

INFECTION EXPERIMENTS.

Infection experiments on tea at Peradeniya have hitherto failed completely, though material was used on which the fungus was growing vigorously, and the attempts were made during the rains of the South-west Monsoon. It must not however be assumed that the fungus will not attack tea at Peradeniya or higher elevations: indeed, the history of plant pathology in Ceylon appears to indicate that species of *Hypochnus* will be found to be wide spread parasites, though this one has not been reported on tea before.

LENGTH OF LIFE OF FUNGUS.

The tea *Hypochnus* is still alive on prunings left in the field, two months, at least, after pruning. Prunings gathered in June from a field pruned in April yielded an abundance of mycelium when placed in closed glass dishes, which rapidly produced the characteristic spots on fresh tea leaves put in subsequently. In the same field, and at the same date, the lower branches of some bushes, whose new leaves had come into contact with the prunings on the ground, had already acquired the disease from the prunings.

REMEDIAL MEASURES.

As the fungus lives on the stems and branches, diseased bushes must be pruned well back, and as it continues to live on the prunings if left on the ground, these must be removed *and burnt*. This procedure will get rid of the greater part of the fungus, but as it may still exist on the older stems, the pruned bushes must be well sprayed with Bordeaux mixture.

The following mixture has been recommended in recent years, in view of the quality of Ceylon lime in the place of standard Bordeaux Mixture.

Dissolve 6 lbs. 6½ ounces of copper sulphate in two or three gallons of water in a wooden vessel. Slack some good quicklime with a little water and put it into a tub with 120 gallons of soft water. The quantity of lime should be, in Ceylon, about 5 lb. Stir up the lime and water two or three times and leave it to settle. Run off 86 gallons of the *clear lime water*, and mix it with the copper sulphate solution, and then make it up to 100 gallons by adding 11 or 12 gallons of soft water. T. PETCH.—*The Tropical Agriculturist*.

Rainfall figures on Carolina Tea Estate Coonoor for 8 Years.

	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	Averages. '09-'14. 6 years.
Jan. ...	18'48	4'95	0'60	5'18	1'90	0'26	4'35	0'00	5'22
Feb. ...	1'09	2'74	1'80	0' 0	1'19	0' 0	1'10	0'33	1'20
March ...	0'34	0' 0	0'85	0'48	0'04	0'49	9'54	0'00	0'36
April ...	2'51	3'98	4'80	16'24	2'39	0'25	0'65	0'00	5'02
May ...	6'52	4'05	1'30	6' 5	3'22	5'61	0'74	4'94	4'45
June ...	1'32	3'22	5'44	2'48	1'40	1'11	5'48	0'77	2'49
July ...	1'98	3'26	3'28	3'84	4'19	2'56	7'50	7'52	3'35
Aug. ...	6'32	1'85	0'81	2'91	1'32	0'22	10'31	4'67	2'73
Sept. ...	1'83	2'15	3'61	3'74	3'49	3'87	6'03	7'62	3'27
Oct. ...	6'32	15'14	15'12	7'82	6'80	30'15	10'23	7'01	13'55
Nov. ...	8'93	10'98	18'50	18'22	8'79	10'46	12'09	10'64	11'98
Dec. ...	5'66	0' 0	8'25	2'08	10'72	8'37	3'14	2'54	5'68
Total inches...	61'30	52'32	64'36	69'04	45'45	63'35	71'16	46'09	59'30

The average has been taken for the six years from 1909-1914 only.

The two years 1915 and 1916 have not been taken into consideration in the above monthly average figures given.

Carolina Tea Estate,
Coonoor, May 18th, 1917.

CHAS. E. BROWN

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 22.]

JUNE 2, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The meeting convened in Madras by the Chairman on the 30th ultimo to consider the present financial position of the planting industries of Southern India was well attended and representative. The result was that the Government should be approached with a view to easing the situation: a small committee having been formed to draw up the necessary financial aid that would be required.

On the afternoon of the 30th ultimo a Labour Control Committee Meeting was held.

The Scientific Department contributes an article which comprises paras on the Mode of Occurrence of Latex Vessels of Hevea consisting of a summary of No. 30 Bulletin of the Department of Agriculture, Ceylon; and an appreciative obituary notice of Dr. C. A. Muntz, the distinguished Agricultural Chemist, taken from *Nature*: and concludes with some remarks on the report on the Administration of Coorg for the year 1915-1916.

We publish a leaflet No. 3 issued by the Department of Agriculture on the subject of the Mango Hopper Pest and its Control.

We are indebted to the Tropical Agriculturist for the continuation of Coffee Growing for Profit which deals with San Paulo and its Estates.

From the same paper we extract an article by Dr. O. De Vries on the Influence of Rolling on Crepe Rubber.

It is with sincere regret we have to deplore the death of Mr. James Chisholm, an old and valued planter of South Coorg. With him another old landmark of the past disappears to the regret of many friends.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	60,734	8	2
Mr. W. A. Lee	40	0	0
Messrs. Barber & Pascoe	75	0	0
Mr. J. S. Wilkie	150	0	0
„ J. M. Wilkie	60	0	0
Total Rs...	61,059	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

Mode of Occurrence of Latex Vessels of Hevea.

The following is a summary of a Bulletin on this subject by Messrs. Bryce and Campbell. (*Bull. No. 30. Dept. of Agriculture, Ceylon.*)

Considerable variation occurs in the number of stone cells in the cortex of different trees. There is consequently variation in the degree of disintegration of the latex vessels.

There was evidence of the diminished production of latex vessels in February and March, when the trees were changing leaf.

The number of rows of latex vessels in the cortex decreases with the height above ground level.

The distance between the rows of latex vessels did not usually increase in proportion to the distance from the cambium. The average of the distance between the rows was approximately 0.2 millimetres.

Well defined cases of connections between neighbouring rows of latex vessels were not observed. Several examples of bifurcation of rows were, however, noted.

The course of the rows may not be invariably regular and parallel. Sometimes the rows undulate and the same neighbouring rows vary in distance apart at different points.

In general the thicker the cortex the more rows of latex vessels did it contain, though the increase was not great.

The distance from the cambium of the first interrupted row was approximately 1.5 millimetres; this represents the inner cortex or food-conducting tissue of the tree, and should be left untapped.

Dr. C. A. Muntz.

The following obituary notice which appeared in *Nature* recently (*Vol. 99. No. 2473.*) may be of interest to planters,—“It is with deep regret that we record the death, at the age of seventy one, of Charles Achille Muntz, the distinguished French agricultural chemist, who was well known for his investigations on air, soil, and agricultural products generally. Muntz was of Alsatian birth, and began his scientific career as “preparateur” for Boussingault at the Conservatoire des Arts-et-Metiers by whom he was attracted to agricultural chemistry. His first important work was done in connection with Schloessing in 1878, and formed a simple yet striking investigation, which at once attracted world-wide attention and has since led to remarkable developments. It had long been known that nitrates are formed in soil from nitrogenous organic compounds, and the reaction was proved to be of the highest agricultural importance. But the mechanism of the change was unknown; neither chemical nor physical causes seemed to account for it, and no other agent was suspected. Schloessing and Muntz began by measuring the amount of nitrification taking place when dilute sewage was allowed to trickle down a tube packed with chalk: they found that no action occurred for twenty one days, but then it suddenly set in. Why, they asked, was this delay? If the process were chemical or physical, it should set in at once; the only explanation appeared to be that it was biological, the period of delay being the

time needed for the multiplication of the organisms. This hypothesis was tested by adding a little chloroform ; the process at once stopped ; it was started again, however, when the chloroform was removed and some soil extract added. Although Muntz did not proceed further with the work others took it up, and it led to the establishment of a new branch of science—soil bacteriology. Some years afterwards he showed how nitrification might be intensified so as to give a commercial source of nitrate if necessary ; but subsequent electrical developments have probably displaced biological methods on the large scale. His other investigations, if they attracted less attention, were no less meritorious ; he did good work on the chemistry of the atmosphere, determining its content of ammonia and nitric acid, and demonstrating also the presence of alcohol. His other chemical work dealt with mannite and other sugars, and with the nutrition of animals ; finally, mention must be made of his admirable book on manures."

Coorg.

The Report on the Administration of Coorg for the year 1915-16, just received, is as usual an interesting one.

The weather conditions during the period under review were favourable both for wet and dry crops, except for the untimely blossom showers for Coffee in some parts. The Coffee crop was below the average being only 2050 tons. The Cardamom crop was better than last year but below the average and this is attributed to the fact that the plantations had not recovered from the deleterious effects of the drought in 1914-15. The total rainfall was 116·71 inches as compared with the average of 126 inches.

The following were the areas under the chief crops in acres :—

Total area of Coorg ...	...	...	1,012,260
Forests ...	...	...	357,418
Net area cropped ...	...	...	140,167
Cereals ...	...	...	88,847
Oilseeds ...	...	...	377
Sugar ...	...	...	3,547
Fibres ...	...	...	122
Coffee ...	...	...	42,424
Tea ...	...	...	160
Rubber ...	...	...	7,633
Cardamoms ...	...	...	2,348
Oranges ...	...	...	1,183

The eradication of Lantana was continued by the Forest Department during the year a total sum of Rs. 21,651 being spent on the work. 752 acres of dense Lantana and 5,721 acres of scattered Lantana in reserves, plantations, and kumris were cleared, and also 515 acres of paisari. In the reserved forests the Lantana over 69 acres was cut out and burned. 752 re-growth on 9,032 acres of reserved forests and on 2,134 acres of paisaris was uprooted.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

THE MANGO HOPPER.

The Department of Agriculture, Madras, have issued a Leaflet (No. 3 of 1917) on the subject of the Mango Hopper Pest and its Control from which the following is extracted :—

The insect called "the mango hopper" is one of the worst enemies of the mango tree and causes considerable damage to the crop in certain years. This is specially the case in the important mango tracts of Chittoor and Salem in Southern India. There are extensive orchards containing trees of very good varieties in these parts, and within the last few years several complaints have been received of crop failure due to the attacks of this pest. Year after year the trees in the gardens blossom in profusion during the cold weather, and great hopes are entertained of a good crop in the coming season. These hopes, however, end in disappointment in many cases. For, in several of the gardens, within a week or two after blossoming, the flower buds and blossoms turn brownish and gradually wither away. The few first formed fruits drop and the foliage becomes covered with a sticky juice presenting a dark sickly appearance. Ignorant cultivators attribute various causes to this phenomenon ; but the real cause of the damage is in fact the mango hopper.

Nature and Extent of Damage.—During the cold weather when the trees put out flower—shoots thousands of this insect appear and suck up the juice from the shoots and flower stalks and this drain of the tree sap makes the flowers and buds dry and wither. When one approaches a badly infested tree, clouds of hoppers move about like mosquitoes and make a rustling noise as they dash against the foliage. The sweet juice thrown out by myriads of these insects after feeding on the tree sap wets the soil around the tree, and thousands of flies, bees and other insects are attracted by this secretion. When there is a severe infestation, the trees—in fact the whole garden—presents a sickly sight. The trees are deprived of the fruits and blossoms and the leaves appear shiny and covered with a sooty mould ; and thousands of cast skins of the hopper are found on the shoots and leaves. In some trees where the flowering appears very promising, it often happens that not a single fruit is got during the season. This damage is known by the name of "honey dew disease" in many parts of the Northern Circars. The injury thus caused to mango topes is considerable in certain years and the loss sustained by gardeners on that account very appreciable. The continuous injury done to trees year after year by this pest makes them gradually lose their vigour and in the long run considerably affects their yielding capacity.

The insect and its life history.—The mango hopper is a small creature about an eighth of an inch in length having a wedge shaped body. The head is broad with the body covered by the wings gradually narrowing towards the hind end. The six legs are well developed and the hind pair particularly so for hopping. In colour it is light brown with small markings of black and yellow which are only clearly seen when closely examined. When casually observed the colour appears dirty greenish brown. It is extremely active in habits and though capable of flight generally moves about by hopping. The insect is found in almost all the mango tracts of not only this Presidency, but throughout India, and within the last few years it has been noted particularly bad in the topes around Chittoor and Salem. The mango hopper passes its early stages in the mango tree itself. The minute eggs are generally inserted by the parent singly into the plant tissue through slits made generally on the shoots and leaves. These are so small that they are difficult to detect except by experienced eyes. The young hoppers hatching out of the eggs are similar to the parent in most respects, except that they are smaller in size and wingless. These cast their skin periodically and within about ten days grow into adults. On the undersurface of the leaves of badly affected trees patches of these cast skins may be found in abundance. Both young and adult swarm on the tender portions of the tree and suck up the plant sap by means of their tubular mouth, thus causing a substantial drain on the plant nutrition. Thus it is found that the breeding season of the insect corresponds with the time when the mango trees blossom and hence the enormous numbers in which the insect is found at this time of the year.

Control methods.—To control hopper pests like this, there are two measures which might be adopted. One is the mechanical method of trapping and destroying the hoppers by means of nets and bags or screens smeared with some sticky material. The other method consists in spraying an insecticide to kill the young ones of the insect that are wingless and as such unable to hop or fly about. Against a pest like the mango hopper, which infests grown up mango trees, the former method becomes almost impracticable, though it may be found effective in the case of low growing crops.

Spraying with an insecticide is not only practicable, but if carried out at the proper time will be found very effective. Experiments in this direction were carried out by the Department during the past two years in some gardens in Salem and Chittoor and the results have been conclusive. The following gives a brief account of the various aspects of the question gathered from the experience gained during the past two years.

Time for spraying.—The operation must be commenced as soon as the first flower shoots begin to appear and must be continued once every ten or twelve days afterwards up to the time when the fruits set well and are able to withstand the attacks of the hopper if any. This would work out at the most at eight to ten applications for the season and the operation will have to be carried on from the beginning of January, when generally the trees begin to blossom, up to the end of March. No hard and fast rules need be laid down as to the exact number of sprayings each tree is to get as it would vary with the intensity of the pest attack. If the latter is completely reduced after three or four applications, it is hardly necessary to continue the operations for more than two or three more weeks. Seven or eight applications have been found to be ample in most of the trees we experimented with. It is always advisable to carry on the spraying early in the morning before the heat of the sun is felt by the foliage.

The material for spraying.—Any substance that would kill the young ones of the hopper either by irritation or suffocation or by both can be used for the application. By experience it has been found that the substance called Fish Oil Rosin Soap answers this purpose very well. This soap which is sold in the form of a jelly like substance is thoroughly mixed with water in certain proportions and this mixture forms the spray solution. For the mango hopper 1 lb. of the soap may be mixed with ten gallons of cold water and this will be found very effective. For each good application an average tree of 15 or 20 years standing would require from 3 to 5 gallons of the mixture and thus not more than one-third to half a pound of the material and calculating at the most eight application for each tree the insecticide required would not be more than 4 lb. per tree for the whole season. When a number of trees have to be treated in one garden, however, there will be variations with regard to size, flowering and degree of infestation and as such on an average each tree will be found to require but 5 or $3\frac{1}{2}$ lb. of the soap. It may also be found that after the first few applications the mixture required might be less. When carefully done without waste or unnecessary economy it has been found that 3 lb. of the soap will be sufficient for each tree. The soap must be mixed thoroughly with water so that the mixture becomes a thin watery solution.

Spraying machinery.—The satisfactory application of the insecticide mixture can be done only with special machines which will throw the liquid in fine sprays and wet the tree evenly. Therefore the ordinary garden syringes will not be found effective or economical. A medium sized, portable, and effective machine, which would pay an average gardener to maintain, is the one which generally goes by the name of "Knapsack spraying machine." This is one which can be carried on the back by means of shoulder straps and the operator can conveniently use his hands to direct the spray which goes out through the nozzle at the end of the rubber hose. In order that the liquid might reach the higher branches of an infested tree long tubular bamboo lances may be fitted to the hose and the nozzle put on at the end of the lance. Such a machine will be useful not only for spraying for the mango hopper but will be useful against many other insects which might affect mango or any other crop in the garden at any time of the year. It can be used to spray against pests on vegetable crops, flowering plants, and other fruit trees. Even if it were used for the hopper alone in a big garden, it will be paying in the course of a few years. Such a knapsack machine would cost about Rs. 50. Machines of higher and lower prices could also be had; the lowest priced effective pump with a good nozzle costs about Rs. 20.

Cost of spraying.—As already stated above, the quantity of insecticide required for each tree comes to 3 or $3\frac{1}{2}$ lb. of the Fish Oil Soap. At Rs. 16 per cwt. of 112 lb. which is the present price for it at the Government Fisheries Depot at Tanur in Malabar, the cost of insecticide per tree does not exceed half a rupee. There is no doubt that the price will certainly be brought down if there is a sufficient demand for the material. It is not necessary to add anything for labour as it is expected that each garden owner who employs one or more watchmen during the fruiting season might make use of these men on those days when the trees have to be sprayed, and in big gardens where there are numerous trees, the profit derived from sprayed trees will amply cover this extra cost besides leaving a clear margin. It may also be added that with regard to spraying machines a few gardeners of one tract might go in for a complete spraying outfit on a co-operative basis and use it by turns and, if possible, hire the same to others who may ask for it.

The following tabular statement giving particulars of a few cases of our last season's experiments might give some idea of the different aspects of this question :—

Num- ber.	—	Garden A.	Garden B.	Garden C.
1	Number of trees ...	12	15	10
2	Total quantity of insecticide used ...	16 lb.	22½ lb.	17 lb.
3	Total cost ...	Rs.2-6-10	Rs.4-4-0	Rs.3-3-4
4	Average number of sprays ...	7	6	7
5	Average cost per tree ...	Re.0-3-3	Re.0-4-6	Re.0-5-2
6	Outturn of mangoes from sprayed tree ...	5,590	1,865	2,540
7	Value at Rs.4 per 100 ...	Rs.223-9-7	Rs.74-9-7	Rs.101-9-7
8	Outturn of mangoes from control trees* ...	1,010	747	865
9	Value at Rs.4 per 100 † ...	Rs.40-6-5	Rs.29-14-0	Rs.34-9-7
10	Profit ...	Rs.180-12-4	Rs.40-7-7	Rs.63-12-8

Num- ber.	—	Garden D.	Garden E.	Garden F.
1	Number of trees ...	30	15	25
2	Total quantity of insecticide used ...	20 lb.	12 lb.	28 lb.
3	Total cost ...	Rs.6-15-8	Rs.3-0-7	Rs.5-4-7
4	Average number of sprays ...	4	4	4
5	Average cost per tree ...	Re.0-3-9	Re.0-3-3	Re.0-3-5
6	Outturn of mangoes from sprayed trees ...	8,285	5,905	2,010
7	Value at Rs.4 per 100 ...	Rs.331-6-5	Rs.236-3-2	Rs.80-6-5
8	Outturn of mangoes from control trees* ...	4,995	3,919	1,338
9	Value at Rs.4 per 100 † ...	Rs.199-12-9	Rs.156-12-2	Rs.53-8-4
10	Profit ...	Rs.124-10-0	Rs.76-6-5	Rs.21-9-6

* In each garden an equal number of trees similar in almost all respects to the ones selected for spraying were set apart unsprayed for future comparison of outturn.

† As there were different varieties among the trees selected, the fruits of which would fetch from Rs. 2 or 3 to 8 or 10 per hundred, an average of Rs. 4 is put down for price calculation.

COFFEE.**Coffee Growing for Profit.—Part VI.**

SAO PAULO AND ITS ESTATES.

In a publication issued a few years ago on Sao Paulo and its progress we were told that, out of the total area under cultivation of any description, considerably more than half was planted with coffee, somewhere around the proportion of 360 acres under coffee to 242 acres under all other crops. The total number of trees were returned as being 680,845,410, planted, on an average about 2,000 trees to the *alquiere*. This works out about 400 trees to the acre, so we can take it that they stand about 9 ft. by 12 ft. apart. A small crop works out at about 50 arrobas (each 15 kilos or 33 lb.) per 1,000 trees, against an average output of 80 arrobas, whilst good yields have run from 100 to 162 arrobas per 1,000 trees. Besides the cost of burning off and clearing the land to be planted, put at 80 milreis (when a milreis was worth 1s. 4d. or. more) per *alquiere*, it is reckoned that, at the end of four years when the trees come into bearing, each one costs 6,000 reis (now a milreis to-day is worth only 1s. or less, but in 1908 or 1909, when we believe these notes were written, just after the record crop, it was worth considerably more), say 100 for the planting out, and 500 reis the cost of cultivation during the four years. From that time onwards it is estimated that the annual upkeep of the estate costs about 80 milreis, whilst the crop is apparently picked by the task and paid for at the rate of 500 reis the *alquiere* (probably of capacity, but this is not clear), whilst drying costs 125 reis and transport 100, making 725 reis in all. A labourer's or colonist's family consisting of about four useful members is reckoned to be able to look after 10,000 coffee trees *i.e.*, an area of five *alquieres*, or about 25½ acres, whilst the trees are being reared and, in addition, to be good for picking 1,200 *alquieres* of cherry coffee from elsewhere on the estate where the trees are already bearing.

At the time when the above notes were compiled experiments were being carried out to produce by means of artificial pollinization, a new variety of coffee to include the strength and other desirable qualities of the Maragogipe type with the greater productivity of the Bourbon variety. Evidently the new hybrid enjoyed the confidence of the planters at the time, for we are told that there was a widespread demand for slips. What the ultimate results have been, however, we cannot say.

In 1850-1, the Sao Paulo export of coffee amounted to 115,760 bags, against 10,172,071 bags in 1901-2, showing a goodly sized increase in fifty years. Now planters elsewhere may be glad to note that the area planted is not likely to be increased for some time, as, by the decree No. 1090 of January 9th, 1904, the establishment of new plantations was prohibited in order to regulate the production and to try and avoid another year of such over-flooding crops as those of 1906-1907, when Brazil's total production, available for export, amounted to nearly 20,000,000 bags of 4 arrobas, or 60 kilos each.

Limiting the area planted does not, however, ensure the total output of coffee being any the less, because it may probably lead to better cultivation and more adequate manuring, both of which are badly needed on many if not most of the estates especially those in the hands of the Brazilians themselves. We have already called attention to this, as in the article published in August 1914, on "The Non-manuring of Coffee in Brazil," when we showed that out of about 53,000,000 trees in one district, some 6,000,000 were poorly cared for, whilst another 6,000,000 had been so starved and neglected as to be nearly dead; at any rate, quite unable to affect the output.

Restricting the area to be planted afresh with coffee will therefore, if maintained, be likely to throw back the output, since the planters, in most cases, have never fully realised the immense quantities of plant-food that has been removed annually during the last fifty years from the estates without being replaced. No wonder, therefore, that the output *per estate* goes back, whatever the total output for Sao Paulo may be. We say this because, as we said in 1914, whilst the Sao Paulo exports are most creditable to the State, the individual crops are not, for the figures (as with cocoa and other crops elsewhere) are only being maintained by the new areas that are constantly coming into bearing. - Meanwhile the older estates, through lack of adequate cultivation and manuring, are slowly becoming exhausted, and so causing new areas to be opened up and planted, and this is how the output has been maintained. We urged at the time that the Sorocabana railway extension to Salto Grande, on the Paranapanema River, rendered available for coffee cultivation a triangular stretch of country extending to some 20,000 square miles along the Parana, Teite, and Paranapanema Rivers, and that this formidable area, considered to include some of the best coffee lands of the State, need never have been utilised for coffee in competition with the old-established *fazendas* had their owners only passably repaid to the land the enormous quantities of plant-food that had been removed every year from them. To needlessly rear up fresh competition against one's self would be denounced by everybody in theory, and yet how often is it done needlessly, thoughtlessly, and even wantonly, as in Sao Paulo and many other areas. "Think," we asked our readers at the time, "how much a bag of Sao Paulo coffee weighs (60 kilos, or 132'28 lb.) and then how many bags she turns out in a crop. We all know that Brazil as a whole produced over 19,000,000 bags of coffee in twelve months, the bulk from Sao Paulo; how much, we wonder, of the plant-foods that were exported in this output (never to be returned) was given back to the land? Less probably than the weight of the bags into which the coffee was packed."

Planters outside Brazil, therefore, can still spend their time with advantage by occasionally watching Sao Paulo and studying the returns of outputs from her estates. Doing so will not only show how the world is being over-supplied or inadequately provisioned by the chief producing centre, according to how the crops turn out, but such returns have much in them to teach the practical man what happens when estates are badly kept up, or *vice versa*. If there are any coffee planters outside Brazil who do not believe in manuring their crops, we should strongly recommend them to visit those estates in Sao Paulo who have not done so for if they do they will then realise, especially if turning out a choice variety on their own property, how impossible it is to produce coffee at a profit without an adequate (and liberal) amount of cultivation and manuring.—*Tropical Life*.

RUBBER.

Influence of Rolling on Crepe Rubber.

DR. O. DE VRIES.

(Partly after experiments of Dr. N. L. Swart.)

The opinion is still largely held that prolonged crepeing must be prejudicial to the fresh coagulum. Eaton and Grantham had stated already in 1915 (Agric. Bull. F. M. S. III., 218) that the influence of crepeing, if any, is only small, while after our experiments had been finished the results of Campbell (Bull. Dept., Agric., Ceylon, No. 24) became known. After crepeing as often as 50 to 70 times in the washing machine no difference could be found in the vulcanized product.

We thought fit to repeat these investigations, first because the above-mentioned investigators did not study the influence of smooth rollers, in which the rubber is most pressed, and further because no determinations of viscosity were mentioned although a change in the viscosity of the raw rubber would be the first thing to be expected.

The influence of crepeing can only be determined, if the resulting pieces of crepes are of the same thickness: difference in this respect may cause a difference in the rate of drying, and thereby a difference in the rate of cure. This being allowed for, one would expect from prolonged crepeing a diminution of tensile strength and viscosity and a slower rate of cure. Our experiments tend to show in confirmation of the experiments of Eaton, Grantham and Campbell, that often there is no difference at all, even with much longer crepeing than is ever practised on estates; in some cases small differences were found, though of no practical importance; and only in one case, where the rubber became somewhat warm by prolonged treatment on smooth rolls, was a marked diminution in viscosity found.

Tearing and cutting of the fresh coagulum seems to have little influence on its inner qualities; current opinion on this point is as absurd as the speculations on the "short or long fibre" of rubber.

In actual estate-practice of course rolling as little as is consistent with a good outward appearance of the crepe means a gain in time, fuel and wearing of machinery. Thin crepe under present market conditions has the advantage of rapid drying, though thick crepe with its rapid rate of cure might be preferred by certain manufacturers.

From our experiments the conclusions may be drawn that rolling a number of times more or less has no influence on the inner qualities of the rubber, provided enough water is used to keep the rubber and rolls cool. In trying to prepare crepe of uniform appearance and thickness it does not matter if this is reached by passing the rubber a few times more or less through the rolls.—*The Tropical Agriculturist*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 23.]

JUNE 9, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

All Members of the Association will regret to hear of the sudden death of Mr. J. A. Harris on April 20th. He was Vice-Chairman of the U. P. A. in 1901-1902 and Chairman, U. P. A. in 1902-1903, and again with Mr. Aylmer Martin in 1906-1907. He was specially well-known and respected in South Mysore, where he spent his planting life.

We publish our weekly article on Markets, Prices and Statistics. We have been told that permits have been issued that will cover the exportation of the remaining Mysore Coffee crops; though the actual despatch will largely depend on the tonnage available. As regards Tea, it will interest all Tea Planters to know that at the meeting held in Madras the following resolution proposed by Mr. Richardson and seconded by the Hon'ble Mr. Barber was passed unanimously :—

"That the U. P. A. S. I. do ask the Government of Madras to call the attention of the Government of India to the large quantities of Java Tea which is excluded from the United Kingdom which is now being imported into Australia to the detriment of the British Producer, and do respectfully request Government that the matter may be taken up without delay with the Commonwealth Government."

A small para, on page 200 will show that Sir John Rees has already taken action in the House of Commons.

We publish the first day's Proceedings of the Meeting held in Madras on the question of Financing the Industry. The second day's report will appear in our next issue.

We publish from *Tropical Life* Part VIII on Coffee growing for Profit.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...		61,059	8	2
Mr. J. A. Richardson	...	...	50	0	0
Mr. Campbell Hunt	...	...	30	0	0
Total Rs...			61,139	8	2

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Offerings in auction have been:—

	18—24 April.	25 April 1 May.	Since 1st Jan.	Last Year.
East India	24	895	3,681	13,798
Costa Rica	4,189	3,215	37,095	58,527
Other Milds	338	418	21,642	48,615
Brazil	3,021	54	56,302	28,345
Robusta	35	Nil.	689	583
B. E. A.	323	57	4,282	7,310
Uganda	1,675	760	10,310	

In auction on 1st May East Indias were a little irregular, buyers being very unwilling to pay the prices wanted for the first sizes, but values of all lower grades were very firm. In view of the arrival of the last shipments Costa Ricas were 2/- to 3/- higher.

With regard to prohibition on the 20th April a small informal deputation succeeded in getting an interview with the Secretary of the Board of Trade and pointed out to him the inaccuracy of the figures quoted in the House of Commons. He accepted the correction and promised to have the whole matter thoroughly looked into again at once, but since then nothing more has transpired and the final decision of the Government is still awaited. It looks as if shipments would be limited to half the crop and the question at the moment is as to the correct figures. (The above was written on 2nd May by Messrs. T. H. Allan & Co., in their Weekly Report.)

The following prices have been obtained for South Indian coffee:—

	No. 1.	No. 2.	No. 3.
MYSORE—			
Hoskote	57 94/-	40 90/-	6 87 6
Nugger	43 96/-	13 92/6	...
Elliot's	24 95/-	13 87/-	3 79/6
Granite Hill	14 88/6	8 83/6	2 78/-
"	45 90/-	27 87/6	7 80 6
Kent's Chick	47 96/6	10 90/-	...
Biccode	59 N.	15 95/-	2 85/-
Macdongall's	36 90/-	20 85/-	4 75/-
"	47 92/-	24 89 6	3 82/-
Bellavi	53 96/-	9 90/6	1 85/-
Avati	36 92/-	...	...
MN.P.	72 96/6	...	...
COORG—			
Jumboor	20 N.	12 N.	...

		PB.	5	Average.
MYSORE—				
Hoskote	...	9 109/-	4 84/6	93/1
Nugger	...	4 109/6	2 84/6	...
Elliots	...	5 102/6	2 85/-	92/3
Granite Hill	...	3 87/6	2 80/-	85/8
"	...	10 99/-	5 81/-	89/-
Kent's Chick	...	10 103/6	3 85/6	...
Biccode	...	25 109/-	5 86/-	...
Macdougall's	...	8 96/-	7 81/6	97/9
"	...	3 101/-	6 83/6	90/7
Bellavi	...	5 110/-	...	...
Avati	...	...	...	...
MN. P.	...	...	...	...
COORG—				
Jumboor	...	2 N.	2 94/6	...

Tea.

Prices have made another big jump. In the Indian sales on 30th April there was scarcely anything under 1/9 and for Ceylons on 1st May 1/9½ was the lowest price.

A London telegram dated 31st May stated that the arrangement whereby 40 per cent. of imports of Indian and Ceylon tea is retailed at 2/4 per lb having resulted in raising the prices of the remainder, will be replaced on the 11th June by a scheme whereby 30 per cent. of such imports will be sold wholesale at 1/1 per lb., and retail at 2/4 inclusive of the shilling duty. Thirty-five per cent. will be sold wholesale at 1/2 and 1/3 and retailed at 2/8, and 25 per cent. wholesaled at 1/5 and 1/6 and retailed at 3/- and the remaining 10 per cent. will be sold to the highest bidders without limitation of retail prices. It is hoped that the guarantee against adulteration of controlled teas will be provided.

Rubber.

The Rubber market has been quiet. On 2nd May prices were, Crepe, 3/1; Sheet, 3/-¾.

Rubber Exports of the Straits.

The following are the official figures showing the export of Hevea Rubber from the Straits Settlements and the Federated Malay States:—

	Straits Settlements.			Federated Malay States.		
	1914.	1915.	1916.	1914.	1915.	1916.
January	1,181	2,576	4,443	2,542	3,473	4,471
February	1,703	2,741	3,359	2,364	3,411	5,207
March	1,285	2,477	4,481	2,418	3,418	4,429
April	1,548	1,978	4,219	2,151	2,777	3,904
May	1,309	3,588	3,274	2,069	2,708	3,956
June	1,480	2,249	3,836	2,306	3,403	5,114
July	1,584	2,324	5,106	2,971	3,687	5,053
August	1,325	2,295	3,246	1,850	3,796	5,782
September	1,602	4,725	2,987	2,879	3,984	6,376
October	2,006	2,641	5,233	2,897	4,120	5,968
November	2,370	4,292	5,247	2,889	4,636	6,776
December	2,334	3,006	3,219	3,361	5,111	5,717
Total...	19,727	34,691	48,650	30,697	44,524	62,763

R. D. A.

THE U. P. A. S. I.

Financing the Industry.

A Special Meeting, called by the Chairman of the U. P. A. S. I., was held at 10.40 a. m., on Wednesday, the 30th May 1917, at the Connemara Hotel, to consider the present financial difficulties of planters and to place them before the Government, with a view to secure their help in the present situation. The following were present:—Mr. J. S. Nicolls (Chairman), Mr. Satur (for Mr. Wapshare, Ouchterlony Valley Trust), Mr. A. Newmarch (Accountant-General), Mr. D. Annan, Mr. J. Stewart, Mr. R. Ainsworth, Mr. F. J. Stanes, Mr. P. G. Tipping, Mr. A. C. Cotton, Mr. C. H. Browne, Mr. J. G. Hamilton, Mr. C. E. Wood, Mr. W. O. Wright, the Hon'ble Mr. E. F. Barber, Mr. C. E. Abbott, the Hon'ble Mr. L. E. Buckley, Mr. J. A. Richardson, Mr. Black (National Bank of India), Mr. H. L. Padday (Mercantile Bank), Sir Bernard Hunter (Bank of Madras), and Mr. A. Scott (Chartered Bank). Mr. F. Norton (Secretary).

THE CHAIRMAN.

The Chairman, in explaining the object of the meeting, made the following statement:

This meeting has been called to consider our present financial difficulties and to place them before Government and I feel certain that the Madras Government will do all they can to help us to solve what seems a most difficult problem. The presence here to-day of the Hon'ble Mr. L. E. Buckley and Mr. Newmarch, the Accountant-General of Madras, whom I have the pleasure of introducing to you, can but be looked on as a good augury, that Government fully recognise what is facing us, and that in some way help must be given. The amount of European-invested capital in coffee, tea and rubber in Southern India is colossal and our interests are bound up with those of the labouring classes of this Presidency, who find profitable and congenial employment on our Estates. It must be a matter of serious thought to the Imperial Government, that speaking of tea alone, every acre means £40 to the Imperial Exchequer. Owing to the restricted sale of Council Bills on London, Banks are no longer in a position to buy all the Bills offered to them and there is a similar embargo on the remittance of Estate funds from London to India. Most of us have funds accumulating at Home from sales of our produce, and they remain at present of no use. It has been suggested to me that Government should allow Exchange Banks to ear-mark funds against the purchase of Estate Bills, and that Government might even assist the Exchange Banks with funds for this purpose. Gentlemen, we are all prepared to do all we can for the sake of the Empire, and do not want to carry less of the load on our backs than anyone else; we only want something to save us from sinking and I feel certain that Government will see we get it. The business before us, gentlemen, is to discuss the matter of finance as concerns our planting produce.

MR. C. H. BROWNE.

Mr. C. H. Browne said: Mr. Nicolls has put the case so clearly that there is nothing left for me to add. All I can say is with regard to my own experience—I represent several syndicates and Companies interested in rubber and a number of privately owned estates. The means by which we

work these estates are by remittance from London or by bills drawn on London under letters of credit. My agents tell me that they cannot remit money through Exchange Banks. Up to date I have had no bills turned down but banks in future are unable to guarantee negotiation of any bills, though they say they will do what they can. If bills are going to be turned down there seems to be no alternative but to close down unless we get help from Government. I am not a financier and it is not for me to suggest any methods by which this state of things can be remedied or how the Government of India can come to our help. There are those who can advise us and tell us the best lines on which we might approach Government.

MR. J. G. HAMILTON.

Mr. J. G. Hamilton said: Mr. Chairman and Gentlemen: I speak on behalf of Coast firms; I represent three of them. In this matter we have no separate existence at all from planters. Agency business is, in a way, more like manufacturing business. If you are asked to close down you lose your profit. I am also a planter, and planters in this matter stand to lose not only profit, but capital. We cannot close down and leave things alone for a time. Somehow or other we have to keep things going, I speak only for coffee—If you leave an estate unattended for a year, two or three years will be required afterwards to bring matters back to a reasonably productive stage. From what we hear the Government of India seem to contemplate direct relation of Government with planters, but I do not think that it will be at all a suitable arrangement.

In reply to Mr. Hamilton, Mr. Buckley said that State loans could be obtained under special rules relating to repayment.

Mr. Hamilton continued: I do not understand these things. The reason why I do not think direct relation, a suitable arrangement is that the machinery does not exist. It will have to be organised and it will take time and probably be costly. The existing agency and bank houses have all their machinery ready and they are not in any way disinclined to do all they can for planters: but the fact is they cannot get their bills accepted and banks are hampered. They are limited to a matter of 120 lakhs a week, the greater part of which is needed for Government trade, so there is very little left for financing trade or agriculture. The only suggestion which occurs to me for solution of our difficulties is that there should be a small addition to the weekly allowance and the matter for consideration is what arguments can be brought forward to induce Government to grant this. It may be only a question of carrying on for the next six months. This has been foreseen by some people but not by all. Money is lying at home. It is impossible to get it remitted out, and we cannot draw any bills here for want of facilities. I do not think there is any use in discussing temporary loans. We ought to try and find good arguments in favour of a relaxation of restrictions on trade. We represent an industry which must be carried on or else we shall lose very seriously in capital. I am not talking about profits. The whole Empire is in difficulties and we cannot look to profits now. But we have got to try and prevent loss of capital. The only thing for this is that Government should free the currency for us. It is a matter far beyond the capacity of ordinary planters and though at present a coast agent I am only a planter. We have to appeal to experts in this matter to try and devise some scheme by which our money can be brought from home. I am not prepared to put forward a definite scheme now. We must approach Government to relax the restrictions and get at least one lakh a week.

MR. J. A. RICHARDSON.

Mr. J. A. Richardson said: Gentlemen,—There is one point which seems to me a very serious one which has not been touched upon so far. Mr. Hamilton said, either we must get money or close down our estates. It is due to us to point out to Government how very serious it would be both for us and Government if Estates had to be closed down. Apart from the money we have advanced for labour which would be a very big loss to the estates, it would mean a very big loss to the Madras Presidency if you consider the number of labourers who are likely to be thrown out of employment. We must point out this aspect of the matter to Government.

THE HON'BLE MR. E. F. BARBER.

The Hon'ble Mr. E. F. Barber said: Mr. Chairman and Gentlemen, I am in agreement with a great deal of what Mr. Hamilton has said, but I do not agree with him in the point he takes, *viz.*, that we should go to Government and ask for a relaxation of restrictions on the import of gold. That matter must have been considered by men possessed of far better brains than we have. It is a matter we have to submit to. In the *Times of India* two questions are put at the end of a leading article in the issue of the 18th instant. The first is "Is the demand of India for gold so imperative that it should be met; unless in the interests of the Empire it cannot be conceded?" The answer to the question must be "yes." The second question is: "In that case do the interests of the Empire at present override those of India in this particular?" I think we must concede that as well. It seems to me the only way in which we can find relief is somewhat on the lines on which the proposal is made there. We should subsist on advances under *takkavi*. For advances we shall have to offer some form of security and the only security we can offer besides our land is our current crops. Mr. Hamilton says machinery does not exist, by which this could be worked. I submit the machinery does exist. We have agents and banks behind us. Surely the banks could so combine as to help us and Government will also help us. We have to focus our security. We have to adopt some means to do this. I have suggested pooling. Whether this can be done or not I do not know. We are not here to consider whether the interests are small or big. We have to consider our interests as a whole and work for the benefit of the majority. We have all to give up something, in order all may continue to exist and we cannot shut down and as Mr. Hamilton and Mr. Richardson said, apparently we cannot carry on without money. We have to find some course by which we can get the money. I have nothing more to say at present.

THE CHAIRMAN.

The Chairman, Mr. J. S. Nicolls said: I should like to read to you a letter which I have received from Messrs. Peirce, Leslie & Co., Ltd.:

Calicut, 23rd May, 1917.

THE SECRETARY, U. P. A. S. I.,

Bangalore.

Dear Sir,—We are in receipt of your letter of the 21st instant intimating that a meeting will be held in Madras on the 30th instant to consider the important question of approaching Government on the subject of Estate Finance.

We regret that being shorthanded it will not be possible for us to attend but we have a suggestion to make and we hope it will be acted on. A Representative of the Madras Exchange Banks will, no doubt, be present at the meeting and will no doubt explain the present position of exchange as it affects estate finance. Briefly the position is that as a result of the restricted sale of Council Bills on London, the Banks out here are no longer in a position to buy all the bills on London offered to them and their choice of purchase is further limited by the fact of their having received instructions from Government to give preference to War Bills, i.e., Bills drawn against the export of goods considered of national importance such as Wheat, Hides and Skins, Coconut Oil, &c. Neither Tea, Coffee nor Rubber appear on the Government List consequently the Exchange Bank are very frequently compelled to refuse bills drawn against shipments of these products, also ordinary Clean Bills against Estate upkeep. There is a similar embargo on the remittance of estate funds from London to India.

We would suggest that the meeting pass a Resolution urging on Government the necessity of allowing the Exchange Banks to ear-mark funds against the purchase of Estate bills: Government might even assist the Exchange Banks with funds for this purpose, otherwise we see no way out of the difficulty. The Exchange position may cease during the monsoon but we are not very hopeful.

Yours faithfully,

For PEIRCE, LESLIE & CO., LTD.,

(Signed) H. R. PERCIVAL,

Director.

The Chairman addressing Sir Bernard Hunter, who arrived at the meeting a little late, explained that the question they were discussing was that even temporary abandonment of estates was impossible. He said he would be obliged to Sir Bernard Hunter for any information or suggestions he could make for relieving planters.

The meeting then adjourned.

Few races are more influenced by the belief that they are surrounded by numbers of malignant spirits than the people of Korea. To their influence they attribute every ill, all bad luck, official malevolence, loss or power or position, and especially sickness. According to a bulletin of the Smithsonian Institution recently published, these spirits are divided into two classes: demons, self-existent malcontent spirits of departed impoverished people who died in distress; and spirits whose natures are partly kindly, which include the ghosts of prosperous and good people; but even the latter appear to be easily offended and are extraordinarily capricious. To cope with these demons and spirits two classes of sorcerers are employed—fortune-tellers, known as Pansu, and the Mutang, usually a woman, who claims the power of being possessed by, and of controlling, the spirits. Many of the Pansu are blind men, perhaps owing to the common belief among primitive peoples that those who have been deprived of physical sight possess an inner spiritual vision. The paper concludes with a full account of the methods employed by these two classes of officiants.—*Nature.*

COFFEE.

Coffee Growing for Profit.—Part VIII.

COSTA RICA AND ITS COFFEE INDUSTRY.

We have always urged those calling on us for advice as to which centre to choose for coffee-production, first to take a trip to those centres that they fancy the most and can afford to visit, and then, having seen for themselves what these look like and how they appeal to them as a place of abode, to call again and give us their views, so that we could, on both sides, discuss the question in greater detail and with far more satisfaction than can possibly be done with those who have never seen a coffee tree or, if so, who have never had to do with their cultivation. We believe in humouring one's temperament to a certain degree, for, apart from reasons of health, the most dogged and determined character is bound to work better if his surroundings are congenial or when, if not quite perfect, he is able to realise that, on the whole, they are less satisfactory elsewhere. Of course, such trips cost money, but then so does the establishment of a successful coffee or other estate, but when about to invest thousands or hundreds of pounds (sterling) in a new venture, we have always claimed that it is far better to spend anything up to 10 per cent. of the total capital to be invested to ascertain what suits the embryo planter best, rather than risk everything, health as well as mind and money, by settling amidst unsuitable or unhealthy surroundings without personally visiting the area. Some places we know, personally or by repute, would doom all but the hardiest and most experienced planter to failure, and even these old hands are often hard put to it to earn a living, and so only too ready to sell out to those more optimistic of success than themselves.

As, however, everyone cannot for one reason or another, take such trips, we think it best before we settle down and discuss the actual planting of coffee, to devote one or two more articles to telling those who cannot travel a few facts about some of the best-known centres and how they have become so successful as producing centres.

Looking through our file, it can be seen that last October we touched upon coffee growing in Arabia and Abyssinia and compared yields there with other centres. Particulars were then given of areas and yields in Mysore and Southern India, and also in Jamaica. In November, Java and the different varieties known there were described and their merits and drawbacks compared. December was mainly given up to Guatemala. In January want of space squeezed out the usual article, but in February and March, it will be remembered, we were able to give a fairly full account of Sao Paulo and its output, concluding with a warning note on Peru. This month we will take Costa Rica and Porto Rico, and later on we hope to have a few notes to give on Queensland, Mexico, Salvador, Uganda, &c. In this way we will do our best to "personally conduct" our readers on a trip (on paper) through the coffee belt, since it is difficult and costly, if not impossible, to do it otherwise in these days.

Coming now to Costa Rica, those interested in this centre will find much to interest them in several numbers of the *Tea and Coffee Trade Journal* of New York, as, for instance, in those for September, 1914, and May 1916. Probably there are others, but we have these two in front of us at the time of writing. Making use of them, together with our own notes, we are able to offer the following "samples" of the bulk information to be found in the originals quoted.

"Coffee, according to the *Tea and Coffee Journal*, was introduced into Costa Rica from the French colony of Martinique about 1770. 'I remember,' the writer of the article in May, 1916, tells us, 'having seen, many years ago, in one of the seniorial courtyards in the old city of Cartago, six big coffee trees which were the pioneers of the coffee wealth of that little Republic. These, I was told, had been brought by a missionary, Padre Carazo, from Jamaica in a sailing boat during the first-years of the nineteenth century. When the good padre learned that the ship's water supply was running low on the voyage, he is said to have insisted on sharing his portion with the tiny plants he was conveying as a precious gift to the people of Costa Rica.' If this tale can be relied upon, it shows to what an age coffee will live in Costa Rica, and if the trees are still alive as described, it is possible that they also yield coffee, although to what extent can only be surmised. Meanwhile, about 100 years after these six trees are supposed to have first entered Cartago, the Republic was exporting at least 40,000,000 lb. of the berries, besides producing enough to cover the somewhat substantial consumption *per capita* in the Republic itself.

To-day, we are told, there are 193 coffee factories (to prepare raw coffee for market), of which fifty-five are operated by steam, sixty-eight by hydraulic power, and seventy by animal power, whilst 75,000 acres are covered by the bushes that turn out between 50,000,000 and 60,000,000 lbs. of coffee, of which about one-fifth is consumed locally. With the scarcity of tonnage and greatly increased costs of freights, Costa Rica, like all producing centres, is finding out how necessary it is to import machinery (when possible) to clean the berries in order to save as much space and freight as possible.

The bulk of the output seems to be produced on small estates ranging from as low as two acres only up to seventy or more acres.

The War has hit the Costa Rica coffee industry hard, but the excellence of the flavour, or aroma of the better and best grades will, it is believed, pull things round, as the coffee is such a favourite that once shipping facilities improve, consumers will have the coffee and pay a fair price again for it. This is because, claims its admirers, 1 lb. of well-roasted and well-brewed coffee from Costa Rica will give more real coffee than 2 lb. of many of the common grades on the market.

The critical state of the industry, this time in Porto Rico, is also discussed by Mr. Harwood Hull, of San Juan (Porto Rico), in the January (1917) issue of the *Tea and Coffee Trade Journal*, and what is said there applies with equal force to the other centres, and should be carefully studied in order to realise what is taking place at the moment and which consuming markets are most likely to support the planters in the future. Porto Rico coffee is described by Mr. Hull as being a fancy product of very distinctive qualities, generally best described as an "after-dinner" type and much sought after. Much the same can be said of choice Guatemala Costa Rica, and also of all the best British grown coffees, and this is why we would like to know that our readers were studying what our New York contemporaries have to tell them, month by month, as to which coffees are most in demand and how values are running. Such information is invaluable as no one wants to risk their capital to produce one class of coffee when the consumers are running after other types. Besides its local consumption, Porto Rico exported 58,000,000 lb. of coffee in 1896, its record crop.

As in Costa Rica, coffee production in Porto Rico is said to be a small farmer's crop, and the trees seem to flourish on the hillsides and hilltops. Owing to this the prosperity, or otherwise, of the industry at once makes itself felt in the trade and economic life generally of all such countries. Those visiting such centres, even if they have no idea of settling there, should always try to ascertain whether the labour required, especially when picking has to be done, was adequate and what (roughly) the cost of the coffee works out at per bag or per cwt. on the estate or f. o. b. the export steamer. Armed with such information the planter can far more easily and reliably estimate what chance he has of succeeding when he finally does decide to settle down. He will know what his labour supply is likely to be, and whether it can increase with his needs or tends to wander off, and what he must pay out to get his coffee to the consumer as compared with other centres against which he is competing. With coffee, as with all estates, you must be able to reach the markets you cater for. It often pays you better to give more for your land because it is on a good road, or near a railway than to buy cheap areas a "hundred miles from everywhere." In such places even the peasant proprietor suffers, although he may have only a few pounds at a time to sell and can bring it to town over the mule tracts and across the bush land on the back of a donkey. To the "white" planter, however, such out-of-the-way centres seldom pay, although, of course, in many of the Latin-American Republics donkey caravans have always been a well-known sight, and vast wealth has been conveyed to the coast by these patient, useful, but often ill-treated animals.—*Tropical Life*.

Reuter telegraphed this week as follows:—

In the House of Commons, Sir D. Rees suggested that Messrs. Chamberlain and Long might obtain prohibition of import of Java tea into Australia in favour of Indian and Ceylon tea.

Mr. Chamberlain replied that the matter was entirely within the discretion of the Commonwealth Government. If that Government saw fit to give an advantage to Indian tea over foreign tea, needless to say it would be welcome, but he did not think he could usefully or properly act regarding a particular industry.

The tea industry would cordially welcome preferential or exclusive entry into the Australian market, but we assume that the Commonwealth Government would take action of this nature only upon the basis of giving some advantage to its own people. In the event of Australia asking for a *quid pro quo*, the result would be to raise the entire question of this country's fiscal policy and obviously that could not be done at present even to benefit so deserving an industry as tea. Australian preferential duties heretofore have usually taken the form of higher duties on foreign produce, and possibly with so many revenue demands to satisfy, the Australian Finance Member would have no objection whatever to piling more taxation upon the Dutch. But we do not see that the Government of India can make representations to this effect, and as the Secretary of State observed, the matter is entirely within the discretion of the Commonwealth Government.—*Capital*.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 24.]

JUNE 16, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Scientific Department publishes an article on War Time Fertilisers, and we would draw attention to Messrs. Parry & Co's. timely offer. "to consider an offer to pay in London for any fertilisers we may supply." Many planters will no doubt avail themselves of this convenient way of purchasing fertilisers. Their whole letter is sympathetic and sensible.

In connection with Trade with Russia, we would call the special attention of Tea planters to the telegram published on page 309 to the ready adoption of the suggestion of the Secretary of State made to the Australian Commonwealth to exclude foreign teas. We trust that this will be found a source of relief for all Tea planters.

We publish the Proceedings of the West Coast Planters' Association. A circular in connection with the Indian Defence Force Act has been issued from the U. P. A. Office embodying the resolution passed at the meeting held in Madras on May 31st.

We publish also the Proceedings of a General Meeting of the Wynaad Planters' Association.

The report of the second day's proceedings of the Special Meeting held in Madras on 31st May is published, so that the discussion may be on record and easily found.

From *Simmons' Spice Mill* we extract an article on Coffee by Henry Nordlinger & Co., New York.

The short para about Coffee in Uganda shows that that country is not without its alarms but as knowledge is extending the method and treatment of *Hemileia vastatrix* is subsiding.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...		61,139	8	2
Mr. R. K. Walker	...	...	100	0	0
"Three Card Trick"	...	...	12	0	0
Total Rs...			61,251	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

War Time Fertilisers.

We have received a copy of a letter from Messrs. Parry and Co., Madras, which they have addressed to their Coast Agency Houses, reading as follows:—

"We understand that a certain number of planters are in possession of funds in London which they cannot arrange to have remitted out here. When it would be convenient to our constituents we should always be prepared to consider an offer to pay in London for any fertilisers we may supply. We shall be obliged if you will mention this to your constituents when passing on our quotations to them."

We feel sure that planters will much appreciate this considerate act of Messrs. Parry and Co. The Scientific Department has also been favoured with a copy of the following letter from the same Firm, which it is understood has been sent to all planters:—

"We understand that the present situation of the Planting industry is causing severe anxiety amongst its members, and, in view of its uncertainty, your thoughts are no doubt being directed to economies in all directions.

"May we take this opportunity of urging you to consider the point that to stint the use of fertilisers during the incoming season is false economy, and may we further ask you to consider how we propose to help you to maintain, at the lowest possible cost, the productivity of your estates?

"To do entirely without fertilisers or to purchase cheap, worthless, and unguaranteed mixtures is, as we have often previously pointed out, very false economy. The vitality of your trees will suffer and they will gradually become more and more liable to the ravages of diseases and insect pests, which are so prone to prey on trees whose vitality is low.

"The addition then of plant food is absolutely necessary to keep your estates in sound healthy condition, so that, if and when the generally expected post-war boom in food stuffs comes along you will be in the best possible position to take full advantage of it.

"Let your estates once go back for lack of proper nourishment and it will be a long and arduous task to bring them up to their full bearing capacity.

"We should invite your attention to our

SPECIAL WAR TIME FERTILISERS FOR COFFEE, TEA, AND RUBBER which we offer you at the extremely low rates of:—

			Rate per ton
Guarantee.			f.o.r. Ranipet or Feroke.
Coffee	...	5 % Nitrogen and 14½% Phosphoric acid	... Rs. 65/-
Tea	...	6 % Nitrogen and 7½% Phosphoric acid	... Rs. 70/-
Rubber	...	5½% Nitrogen and 13 % Phosphoric acid	... Rs. 65/-

"These fertilisers are prepared with our usual care from high grade fertilisers of guaranteed composition but differ from our standard Fertilisers in being of not quite so fine a nature.

"This detracts little from their value—their effect will be somewhat slower but none less sure. They cannot be washed out of the soil and their effect will be cumulative.

"We are prepared to book orders now for forward delivery."

We quite agree with Messrs. Parry & Co. that it is a false economy to stop manuring an estate which has always been manured and that there is a decided danger in doing this. The crop is likely to deteriorate and it is well-known how difficult it is to bring a neglected estate back into tilth and bearing. Also, as they point out, there is the danger of diseases badly attacking weakened trees.

The mixtures offered by Messrs. Parry and Co., may be used with advantage in general cases to take the place of the usually applied "general fertilisers." Special cases, or those where only one fertiliser is necessary, may be referred to the Scientific Department for advice.

Samples of the fertilisers mentioned above are being sent to the headquarters of the U. P. A. S. I. and may be inspected at the Deputy Director's Office.

Trade with Russia.

Owing to the special importance at the present time of establishing commercial connections on a firm basis between the Allied countries and Russia with the object of ousting German intervention and competition, the Russo-British Chamber of Commerce, 4 Gorochovaia, Petrograd has requested all British firms wishing to trade with Russia now, or after the war, to send their catalogues and price lists (not less than ten copies) to the Chamber. The catalogues in question will be placed in the special library of the Chamber, and will be distributed to Russian merchants interested in the development of their trade connections with the British Empire.

Rubber Yields.

In the Annual Report of Sungei Kruit Estate (Straits) some interesting figures are given showing the progressive yield obtained from Rubber planted in 1907, as follows:—

Yield per acre in 1913	...	six years old	...	372 lbs.
Yield per acre in 1914	...	seven years old	...	390 lbs.
Yield per acre in 1915	...	eight years old	...	462 lbs.
Yield per acre in 1916	...	nine years old	...	554 lbs.

Unfortunately neither the number of trees per acre are given nor is the system of tapping adopted stated.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.

West Coast Planters' Association.

Proceedings of a Meeting (the first of 1917) held at Malabar Club, Calicut, on the 19th May, 1917.

PRESENT.—Kerala Rubber Co. Ltd., per Mr. Campbell Hunt (Chairman) Wandoor Rubber Syndicate per Mr. Campbell Hunt, Malayalam Rubber and Produce Co. Ltd., per Mr. A. C. Morrell, Pullangode Rubber Co. Ltd., per Mr. S. P. Eaton, Mooply Valley Rubber Co. Ltd., per Mr. H. Halliley, Cochin Rubber Co. Ltd., per Mr. E. F. M. Norman, Kinalur Rubber Co. Ltd., per Mr. R. de R. Norman, Calicut Estate Syndicate per Mr. H. H. Tippetts, Mysore Rubber Syndicate per Mr. L. M. Guyver, Eddivanna Rubber and Tea Co. Ltd., per Mr. R. Lescher (Honorary Secretary). *Visitor*:—Mr. F. Winterbotham.

The minutes of the last meeting were confirmed.

345. Mr. J. S. Nicolls was unanimously elected a private member on the motion of Mr. A. C. Morrell seconded by Mr. S. P. Eaton.

346. Proposed by the Chair and carried that the Kinalur Rubber Co., Ltd., and the Kuttiadi Rubber Co., Ltd., be elected members of the Association.

347. **ELECTION OF DELEGATES TO THE AUGUST MEETING OF THE U. P. A. S. I.**—Proposed by Mr. Halliley, seconded by Mr. S. P. Eaton "that Messrs. C. Hunt and R. Lescher do represent this Association at the coming Meeting in Bangalore and be granted Rs.150 each out of Association funds towards their expenses" Carried. Should either of the above named gentlemen be unable to attend at the eleventh hour, the Honorary Secretary was instructed to arrange for another delegate. On receipt of the preliminary agenda of the meeting the Honorary Secretary was asked to forward same to members for their information and instructions to delegates.

348. **INDIAN DEFENCE FORCE ACT.**—The Honorary Secretary was instructed to circularise all Managers asking for full particulars of men liable for service on Estates and how they can best be spared. It was pointed out however that a correct list of how men can be best spared is difficult to formulate accurately until we are in possession of definite information as to place and period of service. On the proposal of Mr. Lescher and seconded by Mr. Halliley, Messrs. Mead, Morrell and C. Hunt were elected to serve on the Selection Committee if required.

349. **ROADS.** Todupuzha-Koothathukulam.—Correspondence with the Acting Chief Engineer, Travancore, on subject of this road was read and recorded. The Honorary Secretary, was instructed to again draw the attention of the Chief Engineer to the dangerous condition of the Todupuzha jungadom.

350. **SCIENTIFIC SCHEME.**—Correspondence from Combined Travancore P. A. was read and noted. The Honorary Secretary was instructed to thank the C. T. P. A. and to request it to kindly convey to the Travancore Durbar, this Association's appreciation for its resolving to contribute Rs. 3,000 per annum for 5 years towards the Scientific Scheme.

351. ASSOCIATION CLERK.—Proposed from the Chair "That the Honorary Secretary be allowed Rs. 15 per month for a clerk for Association office work and this to date from July 1916."—Carried.

It was resolved to hold the next meeting in Calicut sometime in September.

With a vote of thanks to the Chairman and Honorary Secretary, and to the members of the Malabar Club for the use of the room, the meeting terminated.

(Signed) CAMPBELL HUNT,
Chairman.

(") R. LESCHER,
Honorary Secretary.

Wynaad Planters' Association.

*Proceedings of a General Meeting held at the Meppadi Club,
on June 6th, 1917.*

PRESENT.—Messrs. Blackham, Cheeseman, Copland, Gauld, Lobban, Mackay, MacLeod, Malcolm, Milton, Powell, Vernede and C. E. Abbott, (Honorary Secretary).

Visitors.—Messrs. Murray and Naylor.

Mr. Malcolm in the Chair.

2300. The Proceedings of the last Meeting were confirmed.

2301. CALICUT MYSORE FRONTIER ROAD.—Read letter from the Honorary Secretary to the Executive Engineer West Coast Division, dated February 10th, to which no reply has been received. Members stated that very little work has been done on the section of the Road between Kalpatty and Sultans Battery, and that especially between mile 49 and Sultans Battery, the Road is in a very bad state, while except a few patches none of it is in good order. The Honorary Secretary was instructed to address the Executive Engineer and ask if he would be able to have the work in the road carried out soon.

2302. DISTRICT BOARD ROADS.—Read letter from Honorary Secretary to District Board Engineer and reply from the District Board Engineer stating that all defects on Road 31 and the Vellaramulla Road had been remedied. With reference to Road 31 Members interested said that they did not consider this statement accurate and that several new defects on this road had since developed. The Bridge about mile 1—3 beyond the Jubilee Flat is very bad and almost every week planks get broken and fall away. Near mile 2—3 there is a small culvert which has sunk about a foot below the level of the road. The bridge near mile 3—4 has been repaired but the beams are too short, the ends being flush with the upright iron supports and do not project over to the abutments. Bridge No. 9 requires

immediate attention and repairs to the upright supports and hand rails. Bridge near 4—6 has been taken down for rebuilding. Nothing further has been done with the exception of digging foundations.

Read letter from Mr. Gauld to the President of the Wynaad Taluq Board stating that the temporary diversion here is useless for carts and unless something is done immediately he would not be able to despatch his crop during the Monsoon months. An accident to one cart had already occurred. Proposed by Mr. Gauld and seconded by Mr. Copland and carried unanimously: "That as the statement of work said to have been done on Road 31 does not coincide with the actual work that has been completed, the President of the Taluq Board be asked to inspect it and that Mr. Gauld will be very pleased to show him the portions complained of."

2304. FIRE INSURANCE.—With reference to para 2298, the Honorary Secretary stated that he had been informed in Madras that some concessions were to be made. He had no details at present but was enquiring.

2305. POLICE AND WARRANTS.—Read letter from Mr. Windle D. S. P. North Malabar with regard to the insufficient description of coolies for whom warrants were taken out and the difficulty the Police had in ascertaining if such coolies were on estates. Mr. Windle gave instances of this. Read Honorary Secretary's reply. Resolved:—"That the Association agrees with Mr. Windle that Superintendents ought to make careful enquiries before endorsing warrants. We think that Police with warrants should search the estate for accused, but should first ask the permission of the Superintendent and conduct the search with his knowledge. Also that Estate Writers' signatures should not be accepted unless the Superintendents written permission has been given to sign in his absence."—Carried.

2306. MR. COPLAND'S CASE.—Read correspondence between Mr. Copland and a Member of the Nilgiri Planters' Association. Resolved that the Honorary Secretary be instructed to forward the correspondence to the Chairman N. P. A. with the request to get the opinion of his Association on the matter as the method of recruiting disclosed appears undesirable and to return the papers.

2307. WYNAAD MEDICAL ASSOCIATION EXTENSION SCHEME.—Dr. Milton explained the scheme to the Meeting. Certain questions arose and it was decided to postpone a decision to give time for further consideration. The Chairman desired to thank Dr. Milton for having come such a distance to attend the Meeting. This was carried with acclamation.

2308. FINANCE MEETING IN MADRAS.—The Honorary Secretary who had attended this Meeting gave an account of what had been done. (The proceedings have since been published in the *Madras Mail*.)

(Signed) B. MALCOLM,
Chairman.

(") C. E. ABBOTT,
Honorary Secretary.

MEMBERS WHO HAVE NOT PAID THEIR SUBSCRIPTION FOR 1917
ARE REQUESTED TO DO SO NOW.

THE U. P. A. S. I. FINANCIAL SITUATION.

Meeting in Madras.

The following is a report of the proceedings of the Special Meeting convened by the Chairman, which was adjourned to the 31st May. The following were present:—Mr. J. S. Nicolls (Chairman), Messrs. P. Eccles (Madras Customs), C. H. Browne, Satur (representative of the Ouchterlony Valley Trust), A. S. Dandison, W. A. Lee, F. J. Stanes, J. A. Richardson, Hon'ble Mr. E. F. Barber, Hon'ble Mr. L. E. Buckley, Messrs. P. G. Tipping, C. E. Abbott, R. Ainsworth, Aylmer Martin, J. McIver, T. A. Kinmond, J. G. Hamilton, and F. Norton, Secretary.

The Chairman: Gentlemen, as a result of our meeting yesterday morning, Mr. Ainsworth has a few suggestions which he wishes to put forward and he will address the meeting now.

Mr. Ainsworth: Mr. Chairman and Gentlemen,—Sufficient was said at yesterday's meeting to indicate to Government the serious position in which the planting community will be placed if the Exchange Banks, which hitherto have greatly assisted us by taking practically the whole of our bills, and for which help we wish to express our indebtedness, are compelled on account of the increasing financial stringency to turn down our bills. What we have to do to-day is to advise Government of our actual requirements in rupees, and we also wish to bring forward several suggestions for Government's consideration. The requirements of the Tea, Rubber and Coffee Estates in South India may be taken as Rs.8 lakhs per week; and it should be borne in mind that there is no question of difficulty in providing for this amount in London. The trouble ahead of us is all on this side. We have, therefore, drawn up the following suggestions for the approval of the meeting.

"That in view of the serious warning given by the Exchange Banks of a more acute financial stringency, this meeting asks Government to take action with a view to relieving the situation."

We suggest that—(1) The Council Bill allotment might be raised above Rs. 120 lakhs per week; or (2) A certain amount of Council Bills might be ear-marked for estate requirements; or (3) Government might make advances to Exchange Banks for the purpose of purchasing Estate Bills; (4) Rupee one and two notes might be issued at once.

We will now deal with the various suggestions.

As regards Council Bills—the increase in the weekly allotments of Rs. 120 lakhs will create difficulties between the Indian and British Governments. We admit this: but cannot the solution of the difficulties be postponed until after the War?

If nothing can be done in the way of increasing the allotment of Council Bills, then we suggest the earmarking of a sufficient amount of Council Bills to cover our requirements.

Failing this, we suggest that Government should assist the Exchange Banks when necessary by way of advances to enable them to purchase estate Bills. In this connection we have considered Sir Bernard Hunter's reference to loans out here against Treasury Bills deposited at Home, and we think that, if loans are going to be given in India at all, they should be granted to Exchange Banks to enable them to buy Estate Bills in the ordinary way.

As regards Rupee one and two currency notes, we think they should be introduced without delay. It should be made a penal offence for Marwaries and Hundi merchants to purchase them at a depreciated value. If there are going to be any resolutions placed before the meeting at all, I think these should be the resolutions.

The Chairman : Mr. Ainsworth has put forward these resolutions from his point of view. I think the suggestions ought to be considered by the Council of the U. P. A. S. I. The Hon. Mr. Buckley is here and all he wants to know is what our people have got to say about these matters. He has heard the whole thing. Eventually suggestions will be put by the Council of the U. P. A. S. I. and then they will go through the proper course of the U. P. A. S. I. to Government. I presume Mr. Buckley, you want only people's ideas ?

The Hon'ble Mr. Buckley : That is all.

Mr. C. E. Abbott said that they all wished to put something before the Government. It was not altogether a meeting of the U. P. A. S. I. that was being held then. Business men had been called to attend the meeting and had attended it.

The Chairman feared that it would not be possible to put these resolutions to the vote at that meeting, in which case he asked how would Mr. Buckley vote ?

Mr. Abbott : We have asked other people to attend besides members of the U. P. A. S. I.

The Chairman : They are interested in the U. P. A. S. I.

Mr. Abbott : They are interested in the financial problem.

The Hon'ble Mr. Barber said that they were very much indebted to Mr. Ainsworth for the trouble he had taken in preparing the suggestions that he had put before the meeting. The first point he would wish to dwell on was how was the eight lakhs arrived at by Mr. Ainsworth ; because in working out the figures with Mr. Richardson that morning, he and Mr. Richardson made out that the minimum required would be half that amount or Rs. 4 lakhs. That was on the basis of the produce that was exported from India. For produce that was sold in India, they got money which perhaps Mr. Ainsworth had included.

Mr. Ainsworth : I have excluded the sales in India.

The Hon'ble Mr. Barber : Then you have deducted money for local sales from the total money required. Taking Tea alone could you give out the figure ?

Mr. Ainsworth : I can give you the combined figure for Tea and Rubber.

The Hon'ble Mr. Barber : On what is the Tea figure based ?

Mr. Ainsworth : I cannot give it to you now.

The Hon'ble Mr. Barber : Tea is in excess of rubber.

Mr. Ainsworth : It must be. I have not got separate figures.

The Hon'ble Mr. Barber : The export figures for tea from South India are roughly 24 million lbs. a year. Allowing 33 cents a pound we would require 80 lakhs of rupees a year. That would be about $1\frac{1}{2}$ lakhs of rupees a week. If tea alone takes $1\frac{1}{2}$ lakhs of rupees, I do not know how coffee and rubber could account for the balance of Rs. 8 lakhs. The figures according to my calculations work out roughly at Rs. 80 lakhs for tea,

Rs. 33 lakhs for rubber and including coffee, pepper and cardamoms, the whole total of our requirements worked out at about Rs. 200 lakhs a year or about Rs. 4 lakhs a week.

Mr. Ainsworth: I have not worked out the figure on that basis. My figure is worked on the basis of the actual acreage. Mr. Browne will give the figure for coffee.

The Hon'ble Mr. Barber continuing said that he supposed that the National Bank did more in the way of financing agents than the other banks put together. He happened to know that the normal requirements which went through the National Bank amounted to Rs. $1\frac{1}{4}$ or $1\frac{1}{2}$ lakhs a week. Allowing for the other banks doing the same, which he thought was very likely, it would bring the thing up to Rs. 5 or Rs. 6 lakhs of normal requirements. But they would remember that at the previous day's meeting they were asked that they should put forward their lowest requirements. Mr. Ainsworth's first suggestion was in regard to the Council Bill allotment being raised. Mr. Newmarch had told them at the previous day's meeting that it was not likely to be more than Rs. 80 lakhs. Mr. Newmarch, Sir Bernard Hunter and Mr. Black had told them that Government insisted that priority should be given to war things such as skins, etc., which the British Government required to be imported into the United Kingdom. The result of giving effect to Mr. Ainsworth's proposal would be to relieve the restriction to some extent which was imposed by the Government. It would also get round the Government insistence of war bills being met before other bills and he thought that the suggestion in regard to the Council Bills could only represent the balance of trade between import and export. As regards the one and two rupee currency notes, there could be no harm in it. But he did not think that it would meet the situation. The previous day Sir Bernard Hunter had told them that some amount of relief was in sight by the prevalence of dry weather in China and by the considerable shortage of rice crop. This would release a large stock in Burma. He thought that it would be a pity to put forward those proposals to Government when they knew that they could not be given effect to, and unless they passed resolutions which would have a chance of meeting the views of Government, they could not get much assistance from Government. But that could be done by stating their minimum requirements and also the money that they had at home which they could offer as security against advances here. Further advances would have to be made against their crops. There was one other matter which they ought to discuss and that was how they should get their advances. That ought to be a matter for discussion at that day's meeting. He thought they must be more careful of the divergence between Mr. Ainsworth's and his own figures in regard to their requirements. They must go into it very carefully.

Mr. C. H. Browne: You have not allowed for the large acreage which is not bearing?

The Hon'ble Mr. Barber: I think I said that these figures deal only with estates in bearing and the ripe crops. In regard to new crops, I think most of them have got money at home which will be remitted in normal times. Sir Bernard Hunter had said the previous day that war bonds could be purchased at home and placed here. I think that would be a good suggestion. I have not included them in the amount required for the actual upkeep of estates in bearing.

Mr. C. H. Browne: It appears to me that Mr. Ainsworth has stated the planters' case pretty clearly and his suggestions should be adopted. Whether we should have to modify them or not is another question. I

think he clearly states the planters' case and tells us what we want. Of course if Government are not prepared to fall in with our suggestions, some other scheme may emanate from Government if they are prepared to help, but Mr. Ainsworth has stated the planters' case from the planters' point of view and I think that we should adopt them.

Mr. Ainsworth observed that if any advances were to be made, it must be done by Exchange Banks. They should be allowed to purchase bills here to the extent of their requirements.

The Hon'ble Mr. Barber said that Sir Bernard Hunter's suggestion was quite a general one. He had not referred to Presidency banks. What he stated was "You have got money at home. If you care to buy war bonds they will furnish good security for advances here."

Mr. Ainsworth said that they did not want advances here. They wished to get the money in the usual way, and why should it not be provided out here in the usual way?

Mr. C. E. Abbott: I rise to propose that this meeting adopt Mr. Ainsworth's suggestions subject to the approval of the U. P. A. S. I. Council. This meeting is called by the U.P.A.S.I. and anything we pass here must be or ought to be confirmed by the Council of the U. P. A. S. I. and therefore it must be subject to their approval. Of course it may be said that we are asking for more than what we can get, but I suppose every business combination in India is hit by the same difficulty and approach Government in one way or another for help. We put our minimum requirements in these resolutions. We may not get them, but we have this one advantage and one additional claim upon Government, and that is that we are employers of a large number of natives of the country, that their existence practically depend upon whether we actually carry on or not. It is no question of cutting down allowances to a pittance. We ask them for help to carry on our work. We know that things are doing pretty well on the agricultural line. We want to keep on employing our coolies and not cut their allowances down to less than what we have been paying. (Applause).

The Chairman: I agree with Mr. Abbott that the resolutions might be put forward in the form in which they are now written. I wish to know the sense of the meeting if the resolutions could be put forward here and voted on and that they should be subject to the approval of the U.P.A.S.I.

Mr. C. H. Browne:—I do not think there could be any objection to that.

The Hon'ble Mr. Barber:—I do not think there is any need to vote on them.

Mr. Ainsworth moved and Mr. Abbott seconded the following:—

"That in view of the serious warning given by the Exchange Banks of a more acute financial stringency, this meeting asks Government to take action with a view to relieving the situation and we suggest that:—

- "(1) The Council Bill allotment might be raised above Rs.120 lakhs per week or
- "(2) A certain amount of Council Bills might be ear-marked for estate requirements, or
- "(3) The Government might make advances to Exchange Banks for the purpose of purchasing estate bills.
- "(4) One and two rupee currency notes might be issued at once."

The Hon'ble Mr. Barber said that it might be thought that he was not in agreement with what Mr. Ainsworth asked for. That was not the case. The only thing he wished to put before the meeting was whether it was

advisable for them to ask for that which they did not think they could get. It had been said the previous day definitely, and he thought it could be borne out, that Council Bills would not be increased, that they were more likely to be reduced, and one bank manager speaking to him the previous evening said "You may be faced at a week's notice with further restrictions." He thought that they, in accepting Mr. Ainsworth's suggestions, ought to have further alternative suggestions in case they were not found acceptable.

Mr. Aylmer Martin wished to say one word from the humble coolie's point of view. As regards keeping some of them away from their estates and giving a pittance to them, the arrangements for the next ten or twelve months had already been made in several estates and advances had been given to coolies and contracts had been signed. When a coolie broke his contract they applied to the court and did their best to capture him and force him to perform his contract. Were they now to say that they could not continue to employ the coolies though the contract had been made and were they to say that they refused to pay them wages although they had signed the contract?

Mr. J. A. Richardson: That is a point I dwelt on yesterday. I pointed out the very serious effect it would have, if estates are closed down—not only the losses we would incur in advances but the loss to the presidency in having a huge number of coolies thrown out of employment.

Mr. Aylmer Martin: Coolies will run us in for breach of contract. I do not want to be put in jail for breaking my contract with the coolie.

The Chairman then read the resolution proposed by Mr. Ainsworth and seconded by Mr. Abbott.

The Hon'ble Mr. Barber: May I make a suggestion that these resolutions will be subject, as Mr. Abbott has proposed, to the approval of the U.P.A.S.I., and that they will go through the U.P.A.S.I. to Government after they have been approved by the Council?

The resolutions were then carried with these words added.

Mr. Richardson: It seems to me that we are losing sight of one fact that the present position has been brought about by the Government attempting to restrict exports. It is not the result of bank's work. We are asking the Government to go back on what they have practically put in force. I think we have now got a very serious problem before us. Mr. Ainsworth says that his figures worked out are very approximate. I think we might form a committee to go into this statement of figures very carefully.

The Chairman: I think that is the only way by which we shall ever get to a true statement. I should like to suggest a committee myself comprising Messrs. Ainsworth, Richardson, Browne, Barber and myself (*ex-officio*.)

The Hon'ble Mr. Buckley: May I say a word with your permission? If you are going to have a committee to fix what your minimum requirements are, will that committee have power to meet the representatives of the Banks and ascertain how far they will be able to meet your requirements? I think it will help the Government considerably if the committee undertakes this work also.

Mr. Chairman: I think so. The Committee will have the power. I want to amplify my suggestion about the formation of this committee. It has been pointed out by Mr. Buckley that it does not quite cover the whole ground. I wish to add a few words.

Mr. Richardson then re-drafted the resolution in the light of Mr. Buckley's inquiry as follows :—

"That a committee be formed to go carefully into the necessary estate requirements and be empowered to interview the banks as to how far they can meet the situation and any other subject in this connection."

The resolution was then put to the meeting and carried.

The Hon'ble Mr. Barber then proposed the following resolution which, he said, he and Mr. Richardson drafted together and thought it well to put it before the meeting :—

"That as all economy is necessary during this critical period, this meeting recommends that only a percentage of salaries be paid to the following scale which it asks the U. P. A. S. I. to confirm." It is understood that the balance of pay will be retained and paid as soon as practicable.

Mr. Barber did not think that it was too much to ask for this at the present time. Mr. Browne had told him that one of his Superintendents had offered to take half of his pay during the period. The Banks, he thought, would appreciate any saving of that sort during the present crisis.

Mr. Richardson : I have much pleasure in seconding this resolution. I do not think I can add anything further. I think it is up to us to show that we are willing to do our best and cut down expenditure in every way possible and let the Government and the banks see that, while we are asking for help, we are prepared to do our little bit.

Mr. Ainsworth said that while he did not wish to oppose the resolution he did not think that the savings would be sufficiently great to make any alteration in the situation.

The Chairman : You rather miss the idea underlying the suggestion. The idea under it is moral. It is not merely the financial point which Mr. Barber puts forward. It is the moral idea underlying it.

Mr. C. H. Browne : Does that only apply to the European staff ?

Mr. Aylmer Martin : I am personally quite agreeable to the resolution so far as it goes, but I do not know that you will meet with some practical difficulties in the way. There are two or three men I know of who have mortgaged every bit of their salary that they are not using for food and clothing to the bank for war loan. They have got to find money for it. One of them goes up to 18 months. In this you will have some practical difficulty.

The Chairman : That will probably be a case to be considered. You will have the tribunal (Laughter).

I will not ask the meeting to vote on this resolution, but it might remain as a suggestion, but an appeal might be forwarded to all Councillors for their consideration.

Mr. J. A. Richardson : I have got a resolution which I should like to put before the meeting in connection with foreign-grown teas. You all know that Java teas are prohibited from the Home market, and I should like to see the same is carried out in Australia. The resolution is :

"That the U. P. A. S. I. do ask the Government of Madras to bring it to the notice of the Government of India that large quantities of Java tea which is excluded from the United Kingdom are now being imported into Australia to the detriment of the British producer and do respectfully request the Government that the matter be taken up without delay with the Commonwealth Government.

"That copies of this resolution be sent to the Indian Tea Association and the Ceylon Planters' Association."

The Hon'ble Mr. Barber seconded the resolution and said that he had nothing to add to what Mr. Richardson had stated. He believed that if that resolution could be given effect to, it would save them a lot of bother.

Mr. Aylmer Martin : I think Sir John Rees has already drawn attention to this in the House of Commons.

Mr. J. A. Richardson : I do not think there is any harm in our bringing the matter to the notice of Government by this resolution.

The Hon'ble Mr. Barber moved the following resolution which he said he had drawn up after discussing the matter with Mr. Richardson.

"That this meeting urges on planters the need for meeting the requirements of the military authorities in regard to the Indian Defence Force scheme to the fullest extent possible and to this end suggests that planters that are called out should be credited with their full pay during their absence, while those who stay behind should undertake the extra work imposed on them without the expectation of further remuneration."

He said that although they were very shorthanded already and might become even more shorthanded in future, there was no good in kicking against pricks. He thought that they should do all that they could.

Mr. C. H. Browne narrated his personal experiences during the last ten days in regard to men who were left behind. He had to visit an estate and he had heard from the proprietor that he had to go to Bangalore and had made arrangements with his assistant to do what was necessary to show him round. Two days later, the Manager said that he was going to Umbala to join the Indian Defence Force and had actually left, and there was nobody left to show him round the estate. If more men were going to be taken away, he did not know what they were all going to do.

The Hon'ble Mr. Barber explained that the resolution applied only to the Indian Defence Force.

The resolution was then put to the meeting and carried.

The proceedings terminated with a vote of thanks to the Chairman.

FOREIGN TEAS IN THE AUSTRALIAN COMMONWEALTH.

It will be remembered that at the meeting at Madras on May 31st, a resolution was passed drawing the attention of the Government of India through the Madras Government to the large importation of Java Teas into Australia to the detriment of the British producer, since which the following telegram has been received by the Secretary, U. P. A. from the Chairman :

"Simla wire Chairman, United Planters' Association of Southern India Daverashola 6618 C. W. Government of India have been informed by the Secretary of State that Australian Government have readily acceded to the suggestion of His Majesty's Government to exclude for the present all foreign teas. You will no doubt consider desirability of asking Government of India forward some expression of appreciation of action of Australian Government Commerce. Advise this information to all Councillors and others freely."

COFFEE.

BY HENRY NORDLINGER & CO., NEW YORK.

New York, April 9.—Since the President addressed Congress on the second instant in regard to the state of war existing between the United States and Germany, prices on the Coffee Exchange have advanced violently. The stirring events which are sure to crop up from day to day, from now on, foreshadow more violent fluctuations.

It is believed by many well-informed financial concerns, with important international connections, that peace is not far off, and it is the consensus of opinion that peace means considerably higher values for coffee than we have seen for years. It is the people who entertain this opinion who have been buying coffee recently with the resultant advance.

There has also been considerable talk recently of a tax on coffee. The President has expressed his opinion that a large part of the coming enormous expenses of the Government should be met by increased taxes rather than by the issue of bonds.

It is not at all unlikely that American ships will be requisitioned by our Government. This will affect the steamers of the United Fruit Company, the Red "D" Line, and War Line, on which lines coffee is usually shipped respectively from Columbia, Venezuela and Mexico. Freight rates have advanced considerably and further increases are to be expected. War risk rates are also naturally much higher.

On the other hand, the statistical position is decidedly unfavourable. Through the absence of the Central Powers from the Coffee market, consumption is curtailed to the extent of their former requirements, say, about 4,000,000 bags annually. Stocks in the United States are very large, amounting to over 3,000,000 bags, and a large coming Brazil crop is assured.

Mild coffees are still very low in price, not having reflected the advance on the Exchange. Some coffees are now practically on option basis. Maracaibo coffees are not plentiful on spot, and bids cabled recently to Maracaibo on the basis of our market, have been declined, with prices quoted in return from $\frac{1}{2}$ — $\frac{3}{4}$ c. a pound higher. Large quantities of Columbian coffees have been taken out of this market by the interior at increasing prices. Importers have, within the past few days, advanced their prices about $\frac{1}{4}$ c. a pound in many cases, and others have withdrawn their coffee entirely from the market for the present. Mexican coffees have not moved freely, and are quoted at practically unchanged prices.—*Simmons' Spice Mill.*

According to the annual report issued from Uganda for the year 1915—16, coffee maintains its position as the principal crop on European plantations, the most general varieties being *Coffea arabica* and *Coffea robusta*. The average yield on estates was low in spite of favourable weather conditions, a fact attributable to an epidemic of coffee-leaf disease (*Hemileia vastatrix*), which killed many trees and weakened others. Fortunately, however, *Hemileia* is the only leaf disease of coffee in Uganda, and as its treatment and prevention is now more generally understood than heretofore, infection is subsiding and alarm in connection with it has decreased. Exports of coffee for 1914—15 amounted to 21,101 cwt., valued at £41,017, an increase on the previous year's shipments of 8,849 cwt.—*Tropical Life.*

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 26.]

JUNE 30, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We think it is advisable to warn Delegates and intending visitors from the Planting Districts who may be intending to attend the Annual Meeting in August, to write to the Managers of the Hotels to book rooms well in advance, or they may not secure accommodation.

We publish the proceedings of the Quarterly General Meeting of the North Mysore Planters' Association and also the Proceedings of an Extraordinary General Meeting of the Nilgiri Planters' Association.

We publish our weekly article on Markets, Prices & Statistics.

In regard to Prohibition of Coffee, the Secretary U. P. A. received yesterday (the 29th) the following telegram from Mr. Brooke Mockett, the U. P. A. S. I. Representative in London on the British Empire Producers' Organisation: "Government have just officially sanctioned import of six thousand two hundred and sixty tons Indian coffee to United Kingdom" which is satisfactory as there had been doubts as to the previous sanction to export.

An important and satisfactory and fully representative meeting was held at Calicut on the 26th on Tea Exports.

We publish the Chairman's covering letter forwarding the Resolutions passed. We hope to publish a fuller report of this meeting in another issue.

We publish the terms of a competition started by the Chilean Nitrate Committee which may interest planters and rouse them to emulation.

We have much pleasure in publishing an article from a Contributor on Green Manuring and Prevention of Wash in Tea, which commences with an Extract from *Rutherford's Planters' Note Book*.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	61,306	8	2
"Three Card Trick"	...	...	25	0	0
Messrs. Barber & Pascoe	...	...	75	0	0
Total Rs...			61,406	8	2

DISTRICT PLANTERS' ASSOCIATIONS.

North Mysore Planters' Association.

*Proceedings of the Quarterly General Meeting held at Balehonnur
on June 11th, 1917.*

PRESENT.—Messrs. E. C. Bolton, C. P. Reed, R. G. Foster, F. W. Hight,
W. H. Reed, (Honorary Secretary.)

The Chairman being unavoidably absent, Mr. C. P. Reed was voted to the Chair.

COFFEE PROHIBITION.—Correspondence was read, and the resolution passed at the Madras Meeting was confirmed. It was agreed that an Extraordinary General Meeting should be called later on in the event of any further action being taken in the matter.

REARRANGEMENT OF SUBSCRIPTIONS TO THE N. M. P. A.—It was resolved that the annual subscription be reduced to Annas 4 per acre from the 1st July 1917. It is hoped that many non-subscribing estates will now rejoin for the sake of unity.

GOVERNMENT WAR LOAN.—Read letter dated 6th May 1917 from the Deputy Commissioner, Kadur District. This Association is of the opinion that it is unable to give the information required as it is beyond its Province.

ELECTION OF DELEGATES TO U. P. A. S. I., ANNUAL MEETING.—Messrs. C. Danvers, and C. H. Godfrey were elected to represent the Association.

DASARA DELEGATE.—Mr. C. H. Godfrey was elected.

U. P. A. S. I. AGENDA.—The subjects on the preliminary Agenda Paper were gone through. It was decided to ask the Secretary to add to the Agenda the subject of "A form of contract for coffee sales in India."

CATTLE POUNDS.—It was resolved that this Association is decidedly of opinion that to abolish the Cattle Pounds on estates would be putting a premium on cattle trespass, and that Village Pounds which in many instances are showing signs of dilapidation and decay be resuscitated and put on a business footing.

INDIAN DEFENCE FORCE.—It was decided to ask Messrs. C. H. Browne, C. P. Reed and C. H. Godfrey to represent North Mysore on the Selection Committee.

ROADS AND COMMUNICATIONS.—This Association fully indorses the Article on "Roads in Mysore" published in the *Madras Mail* of 24th May 1917.

This Association on several occasions has recorded the deplorable condition of the roads in the Kadur District.

MR. BOLTON'S RESOLUTION.—After some discussion the resolution was withdrawn.

(Signed) W. H. REED,
Honorary Secretary.

Nilgiri Planters' Association.

Proceedings of the Extraordinary General Meeting held at 2 p.m., on Thursday, the 21st June, 1917, at the Collector's Court, Ootacamund, to consider the question of how allotments of tea were to be distributed among estates for purposes of shipment to the United Kingdom and elsewhere.

PRESENT.—Messrs. L. A. Gerrard Rogers (Vice-Chairman), D. Elkington, B. Marden, J. Harding Pascoe, Captain L. L. Porter, Messrs. W. B. D'Courcy, N. Grey, W. A. Cherry, L. A. Lake, T. J. Kenna, N. C. Whitton, (for Messrs. Barber and Pascoe), C. W. Deane, E. Sydenham Clarke, G. Oakes and J. B. Leslie-Rogers (Honorary Secretary).

Visitors.—Captain B. A. Edwards and Mr. J. Marsh.

In the unavoidable absence of Mr. A. S. Dandison the Chairman, Mr. L. A. Gerrard Rogers was elected to the chair, and the following resolutions were then put to the meeting:—

(1) Proposed by Mr. J. Harding Pascoe and seconded by Mr. T. J. Kenna, and carried unanimously. "That allotments be made to individual estates, and not to the shipping agent. That all estates should be placed on the same footing, whether they have been in the habit of shipping to the United Kingdom or elsewhere. That old and young estates should share alike; and that a statement giving the actual crop for the past two years, with detailed estimates for the current season be called for, and that such information be placed before a District Committee to be formed for the purpose of passing such estimates. That those estates that wish to have an allotment, shall apply for the same through the U. P. A. S. I., who will pass on the request and information to the District Committee for their report."

(2). Proposed by the Chairman that a District Committee be formed in accordance with the first Resolution; and that Messrs. W. A. Cherry, D. Elkington and J. E. Bisset, be elected for the said purpose.—Carried unanimously.

3. Proposed by the Chairman that Delegates be nominated to represent the Association at the Calicut Meeting on the 26th instant, between the Chairman of the U. P. A. S. I. and the Collector of Customs; and that Messrs. J. Harding Pascoe, and D. Elkington be elected as the Association's representatives.—Carried unanimously.

The Chairman in conclusion read a communication from the Hon'ble Mr. E. F. Barber announcing the sad news of the death in action of Mr. Geoffrey Church, who was formerly the Honorary Secretary of the Nilgiri Planters' Association. He left India soon after the war broke out, and first served as an orderly in the R. A. M. C. in England, and eventually obtained a commission in the Buffs and won the Military Cross for his distinguished services in France. Lately he had been reported in the casualty lists as "Wounded and missing," and subsequently as "Missing and believed killed." He was a well-known and popular member of the planting community, and the members of the Association deeply regret his untimely death, and take this opportunity of offering their sincere and sympathetic condolences to his bereaved relatives.

The Meeting terminated with a vote of thanks to the Chairman, and to the Collector for kindly placing the Court Room at the disposal of the Association.

(Sd.) L. A. GERRARD ROGERS, *Chairman.*

(Sd.) J. B. LESLIE ROGERS, *Hon. Secretary.*

MARKETS, PRICES, AND STATISTICS.**Coffee.**

1917.	1916,
Tons.	Tons.

Monthly Statistics to 30th April:—

EAST INDIA—

London to 30th April	...	...	360	1,274
Delivered to 30th April	...	...	647	1,098
Stock on 30th April	...	...	470	1,504

COFFEE OF ALL KINDS—

Stock in U. K. 30th April	...	...	44,000	29,750
Total European Imports to 30th April	...	...	72,480	145,700
Total European Deliveries to 30th April	...	...	94,770	147,590
Total European Stock on 30th April	...	...	203,175	202,470
World's Visible Supply on 30th April	...	...	544,885*	493,000

* A reduction of 29,705 tons as compared with a reduction of 26,700 tons last year.

Offerings in auction have been:—

			2—8 May.	Total Since 1st Jan.	Last Year.
East India	...	...	691	4,372	13,796
Costa Rica	...	...	3,850	41,945	58,527
Other Milds	...	...	1,274	22,016	48,615
Brazil	...	...	7	56,309	23,345
Robusta	...	...	Nil	689	583
B. E. A.	...	...	Nil	4,282	7,310
Uganda	...	...	249	10,559	

The market has been very steady and in some cases harder. Buyers are beginning to realise that supplies are not unlimited. So far there are plenty of East Indias in sight, but arrivals of Central Americans are at an end.

The following prices have been realised by South Indian coffees:—

		No. 1.	No. 2.	No. 3.
MYSORE—				
Anekul	...	63 97/-	32 91/-	3 84/-
Kollalu	...	20 92/-	8 91/-	1 80/-
H. Bababooden	...	30 100/-	...	...
H. G. S.	...	62 95/-	...	...
Yellikodigi	...	20 92/-	13 89/-	2 80/-
Hossully	...	72 95/-	23 91/-	4 82/-
Dodguni	...	27 92/6	21 88/-	8 81/-

		PB.	T.	Average.
MYSORE—				
Anekul	...	9 109/-	3 86/-6	95/7
Kollalu	...	5 100/-	...	...
H. Bababooden	...	...	...	...
H. G. S.	...	...	...	...
Yellikodigi	...	...	...	...
Hossully	...	20 107/6	7 87/-	95/5
Dodguni	...	6 100/6	3 82/-	90/4

Prohibition.—Writing on 9th May, Messrs T. H. Allan & Co., say "Prospects of any concessions for British grown Coffee are not very hopeful. The Controller now says that the admission of East Indias which were "in transit" on the date of the Proclamation must be restricted to 2,050 tons, but it does not seem possible that this ruling can be correct and every effort is being made to have the matter put right. It is reported, but not yet officially announced, that 1,500 tons will be allowed from East Africa. Meantime the "Gaika" on which space for 500 tons had been engaged has sailed without taking any coffee. Apparently the whole matter rests with the Shipping controller; if he could allot space there might not be much difficulty in getting permission to ship, but he needs all the available tonnage for food stuffs. In the case of the "Clan" boats now on the West Coast, he absolutely refused to allow part of their available space to be filled with coffee, saying that he could put it to much better use in the national interests, presumably by loading foodstuffs at the Cape or elsewhere en route."

Tea.

The following figures showing the export of Tea from India during the month of March and also the total exports for the year ending 31st March, 1917 are published by the Indian Tea Association:—

	1917.	1916.
	lbs.	lbs.
Sailings to Great Britain—		
From Calcutta in March	... 9,517,320	10,639,061
From Chittagong in March	... Nil.	4,551,335
From 1st April, 1916 to 30th March, 17	... 208,213,084	229,024,884
Sailings to Australia and New Zealand—		
In March	... 394,068	357,776
From 1st April, 1916 to 30th March, 17	... 5,160,041	9,580,073
Sailings to America—		
In March	... 861,593	388,494
From 1st April, 1916 to 30th March, 17	... 6,924,314	11,963,812
Sailings to Other Places—		
In March	... 1,327,718	1,321,683
From 1st April, 1916 to 30th March, 17	... 44,092,381	52,057,190
Sailings from Southern India—		
In March	... 3,547,473	2,433,344
From 1st April, 1916 to 30th March, 17	... 20,199,260	21,664,078
Total Sailings—		
In March	... 15,648,172	19,701,693
From 1st April, 1916 to 30th March, 17	... 284,589,080	324,290,037

In view of the prohibition of Tea and the adjustment of the amount allowed the following figures showing the export of Tea from the different South Indian ports extracted from the statistics published each month by the Indian Tea Association may be of interest.

	In March.	From 1st April, 1916 to 30th March, 1917.
FROM COCHIN—		
To London	... 579,084	4,509,978
To Asiatic ports	... 141,488	314,491
FROM TUTICORIN—		
To London	... 592,330	3,317,319
To Colombo	... 18,355	710,078
To St. John N. B.	... 1,041,104	4,354,560
To Bombay	... —	102,594
To New York	... —	206,146
To Moscow	... —	10,700
FROM ALLEPPEY—		
To Asiatic Ports	... —	20,122
To Colombo	... —	14,002
FROM CALICUT—		
To London	... 1,144,975	6,245,863
To Bombay	... 30,137	286,166
To Colombo	... —	101,193
To Mombasa	... —	1,305
To Aden	... —	1,000
To Karachi	... —	40
To Kathiwar	... —	2,801
Total...	3,547,473	20,199,367

The Exports of Tea from Ceylon from 1st January to 16th April were Black, 45,544,064 lbs. and Green, 1,137,707 lbs. the corresponding figures last year being, 41,840,898 lbs. and 893,044 lbs. respectively.

London Market.—Messrs. T. H. Allan & Co., in their Weekly Report dated 9th May say that heavy offerings, together with a hint from the Food Controller that unless prices came down he would intervene, caused buyers to hold off at the auctions this week and prices are back to about the level of a fortnight ago, say 4*d.* to 5*d.* below the top.

According to a London telegram dated 22nd June, in order to allow further time for the completion of the arrangements for the selling of Tea under the new scheme of four classes, the public sales of Indian Tea which were to have been held on the 25th have been postponed.

Colombo Market.—About 3,000,000 lbs. were offered on 19th June. There was a steady demand for good broken orange pekoes, while broken pekoes both medium and common, sold well, and were mostly dearer. Competition for leaf grades was not so general as last week; prices ruled irregular and generally lower, especially for orange pekoes and good pekoes. Dust and fannings remained unchanged.

Calcutta Market.—The 20,000 chests brought to auction on the 19th in Calcutta met with little or no demand and were mostly withdrawn, in many cases without any bids at all. The scarcity of tonnage and no improvement in the exchange position precludes most buyers from operating and it has been decided that no sale shall be held next week.

R. D. A.

CALICUT MEETING,**Tea Exports.**

MALABAR CLUB,

Calicut, 26th June, 1917.

THE SECRETARY,

U. P. A. S. I.

Dear Sir,—This Meeting was held at the Malabar Club on 26th instant and was fully representative.

The enclosed resolutions were carried unanimously.

I specially draw your attention to the resolution proposed by Mr. Murphy, that estimates of tea crops for the current season and actual crop for the last two years should be submitted to your District Committee before the 21st July.

The following Committees were appointed:—

NILGIRIS.—Messrs. Cherry, J. E., Bisset and Elkington (Honorary Secretary).

WYNAAD.—Messrs. Malcolm, Eyre and Abbott (Honorary Secretary).

ANAMALAIS.—Messrs. Fraser, Behr and Simcock (Honorary Secretary).

PEERMADE AND MUNDAKAYAM.—Messrs. Richardson, McArthur and Murphy (Honorary Secretary).

KANAN DEVAN.—Messrs. Lee, Leslie and Pinches (Honorary Secretary).

SOUTH TRAVANCORE.—Messrs. Stewart, Knight and Cook (Honorary Secretary),

who will receive estimates and examine them. Honorary Secretaries are requested to see that no tea interests in the districts they represent are omitted, and that all proprietors or agents are correctly informed that the submission of estimates is an absolute necessity to ensure any shipping allotment.

Each Committee, after examining the estimates put forward, will send them to the Secretary of the U. P. A. S. I. by whom they will be submitted to Government, who have decided to deal with the U. P. A. S. I. on this matter.

The method of distributing the allotment will be changed on 1st September, from which date each Estate or Company will be given a separate allotment, based on the figures sent in by the District Committees. It is of the greatest importance that these estimates should be in the hands of Government before the end of July, and I would ask all those concerned, in their own interests, not to delay forwarding the same.

Yours faithfully,

J. S. NICOLLS,

Chairman, U. P. A. S. I.

RESOLUTION No. 1.

Proposed by Mr. Pinches and seconded by Mr. Mead:—"That owing to the fact that Tea sold in Colombo or shipped Home *via* Colombo and Tea shipped on optional Bills of Lading do not appear to have been taken into account in fixing the allotments for South India by Government, Government be requested to adjust the South Indian allotment; also that any arrangement come to at this Meeting in regard to the arrangement of allotments be made retrospective."

RESOLUTION No. 2.

Proposed by Mr. J. Pascoe and seconded by Mr. Murphy:—"That allotments be made to individual Estates and not to the Shipping Agents. That all Estates should be placed on the same footing, whether they have been in the habit of shipping to the United Kingdom or elsewhere. That old and young Estates should share alike and that a statement giving the actual crops for the last two years with detailed estimates for the current season be called for and that such information be placed before District Committees to be formed for the purpose of passing such estimates. That those Estates that wish to have an allotment should apply for the same through the U. P. A. S. I. who will pass on the request and information to the District Committees for their report. That this shall be put into force as from the 1st of March, 1917."

RESOLUTION No. 3.

Proposed by Mr. J. J. Murphy and seconded by Mr. Pinches:—"With reference to Mr. Pascoe's resolution, estimates must be sent to District Committees before the 21st of July, after which date no further applications will be considered and that allotments may not be transferred from one proprietor to another."

RESOLUTION No. 4.

The Meeting decided to appoint Committees for the different Districts as follows:—

ANAMALAIS.		
Mr. E. W. Simcock.	Mr. Fraser.	Mr. Behr.
NILGIRIS.		
Mr. Elkington.	Mr. Cherry.	Mr. Bisset.
WYNAAD.		
Mr. Abbott.	Mr. Malcolm.	Mr. Eyre.
PEERMADE AND MUNDAKAYAM.		
Mr. Richardson.	Mr. McArthur.	Mr. Murphy.
KANAN DEVAN.		
Mr. Pinches.	Mr. Lee.	Mr. Leslie.
SOUTH TRAVANCORE.		
Mr. Cook.	Mr. Stuart.	Mr. Knight.

RESOLUTION No. 5.

Proposed by Mr. Congreve and seconded by Mr. Mead:—"That all Tea sold to the War Office or other Government Departments in the United Kingdom be included as part of the allotment of the Estate or concern contracting."

RESOLUTION No. 6.

Proposed by Mr. Pinches and seconded by Mr. Mead:—"That the U. P. A. S. I. review the position in regard to allotments in consultation with the Collector of Customs once in six months and make adjustments if found necessary."

THE CHILEAN NITRATE COMMITTEE AGRICULTURAL COMPETITION.

The Delegate for India of The Chilean Nitrate Committee has instituted two competitions on *Agriculture in India and how this can be improved*. Eighteen cash prizes are offered. The first prize is Rs. 1,000 and the others range from Rs. 600 and Rs. 500 to Rs. 10 for the best essays on the above subject. See advertisement on another page.

This is a splendid opportunity for many to earn sufficient for a trip home or a holiday after the war, or for an Agricultural College education.

The first competition is open to all who are able to conduct experiments whether on field or garden crops, and able to read and write.

SUBJECTS:

- 1st. *The present conditions of agriculture in India and in your district.*—(Deal with articles you have read on the subject and furnish clippings from papers published in India, and finally give your own ideas).
- 2nd. *How can Agriculture be improved in India; in your district.*—(Deal with the principal crops in your district; their relation to other parts of India, if any; and irrigation, manuring, seed selection and implements).
- 3rd. *Position of Co-operation, Nitrate and other manures, and forestry to agriculture.* (Deal with co-operation in relation to distribution of manures, seeds and implements, etc.; Nitrate and other manures and their essentiality to crop production; and forestry, on its relation to availability of manures).
- 4th. *Results of manurial experiments.*—(Deal with your own experiment, whether on garden vegetables or field crops; give details of your cultivation; time of planting, manuring, seeds used, irrigation or rainfall, harvesting and yield. Furnish as much of this information as possible in a tabulated form. Have a photograph taken if possible, of your experiment plot, and attach to your paper. Compare the cost of your manures with your other expenditure, and profit; and work out at what cost artificial manures such as Nitrate should be placed in your district to become economically profitable. What price did you receive for your crop; and if consumed by your family, how much did it help to reduce your bazaar expenses?)
- 5th. *Summary and Conclusion.*—(Treat the above subjects in a concise way to show that you grasp the subjects. State how many times and in how many papers or journals you have seen our advertisements. Give names and dates of the papers. The last information is to show that you are educated up to reading advertisements.)

RULES:

The essays should not be more than 3,000 words in length, or 10 type-written foolscap pages; and written only on one side; leaving a margin of at least one inch. If written by hand the writing should be legible. If the competitor writes in the Vernacular, the paper should be translated into English, and both the original and the translation forwarded.

The essay should be signed with "nom de plume" (an assumed name) and a small envelope should bear the same signature. Your proper name and address should be written on a card, or your visiting card, inserted in the envelope, sealed and attached to your essay. The results of your experiments should be correctly copied as given in your essay on a separate sheet of paper and signed with your proper name. Two or three known persons should testify on this sheet that the statements made are correct. This sheet should also be inserted in the envelope; to be sealed. The essay should reach Calcutta on or before June 1st, 1918. All expenses incurred to be borne by the competitor, except photos sent will be paid for at the rate of annas 4 and 8, depending on the size, and if satisfactory, to those not winning prizes. In addition reasonable quantities of Nitrate of Soda will be paid for by us. If permission has been obtained, the bills from the manure firms from whom the manure was bought should be sent to us (in triplicate) for payment. PLEASE NOTE THAT WE CANNOT SELL OR BUY ANYTHING; NOR EVEN QUOTE PRICES OF MATERIAL REQUIRED FOR EXPERIMENTS. WE FURTHER DO NOT RECEIVE COMPENSATION IN ANY FORM FROM ANY ONE.

JUDGES:

The Delegate of the Chilean Nitrate Committee will be one of the Judges; the 2nd will be an Agricultural Officer; the third a member of a manure firm. As many as possible of the Agricultural Officers and manure firms throughout India will be asked and two judges will be chosen by ballot.

The names of the competitors will not be known until all the essays have been marked, when the sealed envelopes will be broken and the owners of the "nom de plume" established, and the results of the experiments furnished in the envelope will be compared with those in the essay. If permissions are received from the winners their names will be published in all the papers in which we advertise. Those who cannot complete their essays for this competition are always eligible for subsequent competitions. Ladies are also eligible.

The second competition is similar to the first except that the subjects refer only to your district and not to the whole of India as well as district. In addition, should the competitor not be able to reply to any of the three first subjects any topic on agriculture can be substituted for one of them.

Free literature, list of text books and other information can be obtained free of charge by writing to the Delegate, Chilean Nitrate Committee, 1, Royal Exchange Place, Calcutta.

TEA.**Green Manuring and Prevention of Wash.***(Contributed.)*

In an article in one of your recent numbers called "Hints on Manuring Tea," as well as in the report of Mr. Anstead's last tour in the High Range, attention is drawn to the importance of preventing loss of top soil by wash on tea estates and the growing of some green manure cover crop is advocated both for stopping wash in the rains and for supplying valuable manure to the tea. The following extract from *Rutherford's Planters' Note Book* p. 239, which is perhaps not as well known as it deserves to be, may be of interest. The figures given are certainly astonishing:

"LOSS OF SURFACE SOIL THROUGH RAIN WATER.

"It is a well known fact that a clean weeded soil is subject to much more loss of surface soil through wash than a soil covered by green manures. Interesting experiments have been carried out at Peradeniya in order to arrive at exact figures of the loss on the average sloping land. The soil wash from March 1909 to March 1910 was ascertained on various plots and the following table shows the removal of surface soil in tons per acre, the rainfall during the period of observation being 59.03 inches:—

	Tons.
Clean weeded	... 115
Dadaps	... 106
Deep forked land	... 79
Albizzia	... 67
Ipomœa	... 45
Crotalaria Incana across slope	... 43½
Mixed Crotalaria and Indigofera in rows of 1 foot apart up slope	... 26¾
Crotalaria across slope, 1 foot apart in the rows...	26½
Desmodium	... 12½

(End of Extract).

This needs no comment. As regards green manuring itself Rutherford also says:

"Experiments were carried out at Peradeniya and on many estates in the Island, and although failures have occurred, the results if properly carried out with green manuring have so far been very encouraging indeed. The following plants were experimented with:

1. *Crotalaria striata*.
2. *Vigna*.
3. *Tithoria diversifolia*.
4. Groundnuts.
5. *Cajanus indicus*.
6. *Adhatoda vasica*.
7. *Dadap*.
8. *Albizzia moluccana*.

"*Crotalaria striata* yielded much green material, up to 9 tons per acre, but the best plant of a bushy nature is no doubt *Thephrosia candida* (*Boga medeloa*). It grows from sea-level to 3,000 feet elevation and yields more green material than any other green manure plant experimented with. It must, of course, not be forgotten that the growth of a plant producing, as it did at Peradeniya, 58.92 tons of green material from 4 cuttings in a year,

takes up tremendous quantities of mineral ingredients from the soil, thereby impoverishing the soil to the detriment of the tea bush. Analyses shows the ash to contain :—

Lime	...	...	20%
Potash	...	...	31'6%
Phosphoric acid	...	...	7'20%

“All these substances are in due course again returned to the soil, but in order to establish the green manuring plant successfully it is advisable to broadcast a mixture of Basic Slag and Sulphate of Potash. Dadaps and Albizzia moluccana grow very well up to 4,000 feet. All these plants yield a large amount of green material to the great benefit of the soil. Dadaps are generally lopped down to 5 feet when above 10 feet high; this lopping has to be repeated several times during the year.

There is no doubt that worn out tea estates can be very much improved by adopting green manuring.”

These two extracts surely prove that green manuring should be in ordinary use on every tea estate in Southern India and also that the system of clean weeding tea without some kind of cover crop to prevent wash is wrong. As a good green manure not only fulfils this purpose but directly stimulates the tea bush, *why is it that green manuring is not universally adopted on all tea estates in Southern India?*

The question is surely an important one. Green manuring is in use to a large extent in Northern India with the greatest success, I believe. In Ceylon, as the extract given above shows, it is the practice on many estates so why should Southern India lag behind? It is surely up to us to put our house in order in this respect and keep abreast of the times. Mr. Anstead has often written and spoken strongly on the subject but I do not think many of us have tried to carry out his advice and one cannot help wondering why this should be so. Perhaps a discussion in your columns on the subject might explain it and be of interest as well.

CORRESPONDENCE.

June 29th, 1917.

THE EDITOR,

The Planters' Chronicle.

Sir,—We shall be obliged if you will kindly publish the following in your next issue.

With reference to Mr. Park's letter published in the *Chronicle* of May 5th, the Executive of the South Mysore Association beg to tender an apology to Mr. Park and regret that the paragraph in question was published in the Proceedings of the Annual General Meeting of the Association in the *Chronicle*.

The paragraph to which Mr. Park took exception crept into print without the knowledge of the Honorary Secretary who was at the time ill.

Mr. Park having resigned the Association owing to certain differences, the question of his liability to contribute his quota to the Assistant Scientific Officers Fund was and still is under consideration.

C. LAKE,

President, S. M. P. A.

ST. JOHN HUNT,

Honorary Secretary, S. M. P. A.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. NO. 28.]

JULY 14, 1917.

[PRICE AS: 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, left on Thursday night for Coimbatore to attend the College Day celebrations and the Annual Agricultural Conference there. On the 19th, accompanied by Mr. McRae the Government Mycologist, he will proceed down the West Coast on a tour of inspection of the Experimental Plots, laid down last April in connection with the study of the Secondary Leaf-fall disease of Hevea Rubber. Mr. Anstead will also visit the sites of the first two Rubber Experimental Stations at Mooply and in South Travancore respectively and that of the Tea Experiment Station in Peermade to settle details about the buildings to be erected as the Government of Madras have consented to a start being made with these during the present financial year. Mr. Anstead expects to return to headquarters about 14th August in time for the Annual Meeting of the U. P. A. S. I.

We publish the proceedings of a meeting of the Wynaad Planters' Association. We congratulate Mr. Abbott. We all know his worth. *Palman qui meruit ferat.*

We publish our weekly article on Markets, Prices and Statistics.

We call attention to the article on Latex Vessels in Hevea, a summary of which has appeared in the *Chronicle*.

From *Tropical Life* we continue the article on Coffee growing for Profit.

Mr. Brown contributes a further letter on *Tridax procumbens*.

We would remind members of the Tea Planting Community of the Chairman's letter dated June 20th, that estimates of tea crops for the current season and actual crop for the last two years should be submitted to their District Committee before the 21st July.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	61,466	8	2
"Anonymous"	...	...	18	0	0
Total Rs...			61,484	8	2

DISTRICT PLANTERS' ASSOCIATIONS.

Wynaad Planters' Association.

Proceedings of a Meeting held at the Meppadi Club, July 4th, 1917.

PRESENT:—Messrs. Bisset, Blackham, Cheeseman, Copland, Eyre, Gauld, Gillatt, Lobban, Macbain, Macleod, Vernede, Winterbotham, Abbott (Honorary Secretary.) *Visitor*,—Mr. Naylor.

• Mr. Gillatt in the chair.

2309. **NEW MEMBER.**—Mr. E. E. Eyre was elected a member.

2310. **PROCEEDINGS OF LAST MEETING.**—These were confirmed.

2311. **SULTANS BATTERY ROAD.**—Read letter from Honorary Secretary to the Executive Engineer West Coast Division. Since the Meeting a letter has been received in reply with copy of letter from the Overseer, Wynaad, stating that work has been begun from mile 46 on, that it is impossible to get local coolies between mile 48 and 53, that arrangements have been made to import coolies from the plains and that it is expected the road will be completely repaired by the end of August at the latest.

2312. **DISTRICT BOARD ROADS.**—Read Honorary Secretary's letter to President Taluq Board and his reply stating that he was in communication with Mr. Gauld, Mr. Gauld was requested to report :

(In this connection Mr. K. Krishnan Nayar, District Board Engineer, has asked the Honorary Secretary to explain that in his letter of June 1st, 1917 (see para 2302 June Proceedings) he stated that all the defects pointed out in the Honorary Secretary's letter of February 10th had been reported to him to be remedied, not "all defects" on the road).

2313. **FIRE INSURANCE ON FACTORIES.**—Read correspondence. Resolved to bring the subject forward at the U. P. A. S. I. Meeting. The Honorary Secretary to inquire what rates are being paid.

2314. **POLICE AND SERVICE OF WARRANTS.**—Read letter from Honorary Secretary to D. S. P. North Malabar embodying the resolution passed at the last Meeting and reply stating that the Association's proposal had been accepted and orders issued to the Police. The Honorary Secretary was instructed to thank Mr. Windle. It is hoped that this business will now go on smoothly.

2315. **MR. COPLAND'S CASE.**—Read letter to Mr. Dandison, Chairman, Nilgiri Planters' Association, and his reply promising to bring the matter forward at his next ordinary Meeting.

2316. **THE U. P. A. S. I. MEETING.**—Mr. Abbott was appointed delegate Mr. Malcolm was elected second delegate by ballot. Rs.150/- was voted to each delegate for expenses. The Agenda of the Meeting was gone through. The delegates were instructed to do all they could to forward the construction of the Cochin Harbour. The subject of Fire Insurance on Tea Factories was to be brought up.

2317. **DARKHAST RULES.**—Read letter from the Secretary to the Commissioner of Land Revenue. The Meeting approved of the proposals.

2318. **COFFEE STEALING ACT.**—The Honorary Secretary informed the Meeting that he had informed Mr. Hall, Additional District Magistrate, that the Association had already agreed to the proposed alterations.

2319. **ALLOTMENTS OF TEA FOR EXPORT.**—The resolutions passed at the Meeting in Calicut were considered. Mr. Malcolm and Mr. Eyre were thanked for their services.

2320. **PRESENTATION TO THE HONORARY SECRETARY.**—Mr. Winterbotham said:—

Friends,—I have a pleasant duty to perform, thrust upon me by the absence of Mr. Malcolm on Military duty in Madras. It is as no doubt you know the presentation of a piece of plate subscribed for by his friends to Mr. Abbott in feeble recognition of his long and able services to the Association as Honorary Secretary. I really forget how long he has been working in this capacity, but it is difficult to imagine the W. P. A. without Mr. Abbott at its head, and difficult to suppose we can get on in future without him. He says he likes the work, and that is all to the good long may he stick to it, for in the present crisis of our affair a man of his calm judgment and long experience is specially required.

There can be no doubt that the Planting interest in India is in a very tight place. We have to keep our Estates going somehow, we have to keep our coolies together, or lose them, we have to go on paying out money with a very remote prospect of getting it back, seeing that we cannot for a long time get Shipping for our produce. Large firms with a Capital can perhaps tide over the difficulty, but for small men with small means the prospect is anything but reassuring. The Superintendent is all right, because as half the young men are away fighting for our country, his services cannot be dispensed with unless the Estate is actually shut up and we have not actually come to that. For the unfortunate owner the case is very different. The Association will be of the greatest use to us all, and it must have all our support. If anything can be done Mr. Abbott is the man to do it in connection with our friends Mr. Nicolls and the Honorable Mr. Barber.

I will now ask Mr. Abbott to accept our little offering, as a small mark of our appreciation of the good work he has done through so many years. Services like his we know well cannot be bought, but we can at least feel grateful and say so.

Mr. Abbott thanked Mr. Winterbotham and the Members of the Association for their very handsome gift which his wife and he would always greatly value. He was very glad that any work he had been able to do for the District was so kindly spoken of.

A vote of thanks to the chair terminated the proceedings.

(Signed) T. S. GILLATT,
Chairman.

(„) C. E. Abbott,
Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.**Tea.**

The following figures showing the exports of Tea from India during the month of May are published by the Indian Tea Association :—

	1917.	1916.
	lbs.	lbs.
Sailings to Great Britain—		
From Calcutta in May	... 5,514,279	2,074,560
From Chittagong in May	... Nil.	784,210
From 1st April to 31st May	... 17,019,293	13,920,592
Sailings to Australia & New Zealand—		
In May	... 432,671	66,475
From 1st April to 31st May	... 1,344,491	282,886
Sailings to America—		
In May	... 1,902,039*	210,185
From 1st April to 31st May	... 5,332,737	290,263
Sailings to Other Places—		
In May	... 7,729,519*	2,861,388
From 1st April to 31st May	... 9,318,164	7,052,519
Sailings from Southern India—		
In May	... 2,379,339	1,637,024
From 1st April to 31st May	... 3,057,963	3,611,326
Total Sailings—		
In May	... 17,957,347	7,633,852
From 1st April to 31st May	... 36,072,648	25,157,586

* Green tea.

The following were the shipments from South Indian Ports during May.

FROM COCHIN—	lbs.
To London	... 508,959
To Asiatic Ports	... 15,624
FROM TUTICORIN—	
To London	... 247,186
To Colombo	... 958,192
To Bombay	... 7,048
FROM ALLEPPEY—	
To Asiatic Ports	... 2,480
FROM CALICUT—	
To London	... 558,312
To Bombay	... 17,649
To Colombo	... 53,889

Total... 2,379,339

During May 6,125,623 lbs. were exported from India to Russia.

The following quantities of Tea were exported from Ceylon from 1st January to 18th June, 1917, Black, 78,892,379 lbs. Green, 1,499,886, the corresponding figures last year being, 77,213,625 lbs. and 1,296,623 lbs. respectively.

London Tea Market.—There was a fair competition for medium qualities at the controlled Indian sales on 4th July, and an indifferent demand for common and fine kinds. The following figures are published by the *Ceylon Observer*: Indian Tea, stock in London on 2nd July, 28,709,000 lbs; month's landings, 4,084,000 lbs; month's deliveries, 15,064,000 lbs. Ceylon Teas, stock, 21,527,000 lbs; month's landings, 6,568,000 lbs; month's deliveries, 7,500,000 lbs.

LATEX VESSELS IN HEVEA.

In the *Planters' Chronicle* XII. No. 22 a Summary of a Bulletin by Messrs. Boyce and Campbell on this subject was given. The full text of this paper is now to hand and proves of great interest.

If the latex vessel system could be dissected out of the cortex it would be found to consist of a number of super-imposed cylindrical networks. These in a complete transverse section of the tree would appear as a series of concentric circles and in small portions under the microscope appear as parallel straight lines.

In the *Hevea* cortex there are two clearly distinguishable zones, though these are not always sharply demarcated from one another. There is an inner cortex where the rows of latex vessels are continuous and on outer cortex. In the former no stone cells are present, but in the latter these abound and displace the rows of latex vessels making their lines irregular, this interruption being more and more marked the further we go from the centre of the tree so that on the outside only isolated latex vessels can be detected.

The cambium, which is the layer of growing cells which increase the girth of the tree, gives rise to wood cells on the inner side and cortex cells on the outer side. These cortex cells consist of latex vessels, and medullary rays. A row of latex vessels is laid down by the cambium and then several layers of other cortex cells, varying in number in different trees and under different conditions. Stone cells are at first formed between rows of latex cells and by their subsequent growth these push the latter out of their regular course.

There is a considerable variation in the number of stone cells present in different trees ; some have a great abundance and others hardly any at all.

In order to determine whether the formation of new latex cells takes place regularly all the year round, or occurs more actively at any particular season or seasons, sections from the cortex of trees were examined monthly, fortnightly, and weekly.

The results showed that there were good grounds for assuming that there was a diminished production of latex vessels during the period in which the trees were undergoing change of leaf.

During the periodical examination of the trees it soon became apparent that the cortex at 2 feet from the ground contained more rows of latex vessels than the cortex at 8 feet from the ground, there being an average difference of 3.5 rows between the two positions. A number of trees were examined to further test this matter and it was found that in general the number of rows of latex vessels decreases with the height above ground level. In many cases a very large variation occurred in the region subjected to tapping, *i.e.*, from ground level to a height of 4 feet, and this must have an important bearing on yields.

A detailed investigation showed that, contrary to popular opinion, the distance between the successive rows of latex vessels does not increase in proportion to the distance from the cambium and this distance does not appear to be a factor peculiar to any particular tree. The average of the distances between any two rows was, at 2 feet from the ground, 0.22 mm and at 8 feet, 0.25 mm.

A factor which profoundly influences the yield of latex from a tree is the depth of the tapping cut. The nearer the cut penetrates to the cambium the greater the number of rows of latex vessels severed and the greater the yield in consequence.

In the cortex the innermost rows of latex vessels are complete, those further out becoming interrupted and finally totally disintegrated as the bark is reached. It is impossible to tap all the complete rows owing to the fact that most of them are contained in the inner cortex, or food conducting tissues of the tree, which tissue must not be severed. Where complete rows extend into the area pared by the knife, the yield of latex will be greater than in cases where only interrupted rows are present. It might be suggested that the latex yielding properties of the trees are in part determined by the extent to which rows of latex vessels exist uninterrupted at some distance from the cambium. Measurements were accordingly made of the distance from the cambium of the first uninterrupted row in the various sections examined under the microscope. The average distance is greater at 2 feet than at 8 feet from the ground, *viz.* 1.54 mm. as compared with 1.34 mm. It may be said that in the average case a thickness of cortex of 1.5 mm. should be left untapped, this being the tissue next to the cambium essential for food conduction.

SOURCES OF POTASH.

For the past fifty years the potash supplies of the world have been obtained from Germany. Since the war this source of supply has been closed, but still the demand for it is very great and urgent, and various means have been suggested to obtain at least small quantities from wood and other ashes. It seems strange, however, that, considering the vast area of Australia (2,974,581 square miles), and the great variety of mineral deposits found in all the States of the Commonwealth, no potash yielding deposits have as yet been discovered.

In a Bulletin issued by the Utah Experiment Station, U. S. A., it is stated that "the fact that the German deposits have supplied the world with potassium for more than half a century does not mean that there are no potassium deposits in our country, for such is not the case. We have very large deposits of potash, feldspars, and micas, of leucite, alunite, &c., all containing potassium, but these substances are insoluble in water, and up to the present time the expense attached to converting the potassium contained in most of these substances into an available form has prohibited their use as a source of potassium. Due to the European war the quantity of potassium salts imported into the United States in 1915 was only about one-tenth of that imported in 1915, the last normal year. This has greatly increased the price, and this increased value has given a great impetus to the search for potassium salts in this country."—*Queensland Agricultural Journal*.

COFFEE.

Coffee Growing for Profit.

CULTIVATION IN SAO PAULO.

"Much research can and should be done in coffee. What effect upon coffee have the different qualities (chemically) of water? Why do the Latins carbonize the beans so extensively? Why was milk ever added to coffee to complete a beverage? Was it by accident, or, if by design, just why?" Thus asked the *Tea and Coffee Trade Journal* of New York in its issue for October, 1916, and we quite agree with what it suggests, although the remarks refer only to the coffee after it has passed into the distributor's hand. Research work of the most intimate, exhaustive, and continuous nature is badly needed to ascertain the above and many other queries, both in connection with the soil and plants on the estates, and with coffee in the hands of the distributors. As it is with coffee, so it is with cacao and most, if not all, tropical crops used for food. To help to encourage such work we offered our £50 prize some years ago for the most useful, and, therefore, the best article on the "Fermentation of Cacao," and as a result we were able to publish in 1913 our book on the subject, with some notes on fermenting coffee, teas, &c. Such research work badly needs official encouragement, and "after the War" we shall get it (perhaps) when the public and its rulers here realise that the only way we shall ever successfully fight and permanently get the upper hand over Germany, will be in the field of economies and research work and the applied arts. The day this is realised then perhaps we shall get our Agricultural Colleges and Research Institutes in the Tropics. The day we do so will be as great a help to our future prosperity as the Battle of the Marne was in the present War.

When that happy day arrives, one of the first studies that British coffee planters would be well advised to take up is a close investigation of the coffee soils of Sao Paulo, and why the conditions over there, generally speaking, have proved so exceptionally favourable to its cultivation. These conditions, we have been told, include:

- (1) Mildness and equability of climate.
- (2) The configuration of the country.
- (3) The rarefaction of the air.
- (4) The unvarying or equable degree of humidity.
- (5) The quality of the soil as in the *roxa* lands, and especially in the *vermelha* or red soils, which are considered to be the most favourable of all.

Last month we drew attention to the experiments that had been carried out to evolve a new hybrid in Sao Paulo possessing advantages of both parents, *viz.* Maragogipe and the Bourbon. The latter variety was, apparently, introduced into and feverishly planted throughout Sao Paulo on account of the greater rapidity of its development, its ability to produce earlier than the indigenous variety, and also, probably mainly, because it gives such abundant crops. This and the comparatively early age at which it yields caused everyone to "jump at it," only to realise later on that whatever its good points might be, the Bourbon variety was a difficult crop to handle, especially in so happy-go-lucky a centre, with regard to cultivation, as Sao Paulo. Being very sensitive to climatic variations, the plants did

not last so long as the more hardy native types, whilst the aroma of its beans is said to be inferior to that of the Brazilian varieties, and to have caused Sao Paulo coffee on the whole to sell at a lower level than it should do, and would have done had not the Bourbon variety been made so prominent a partner.

For these reasons alone the Bourbon variety, it is hoped, will before long give place to a better quality as regards aroma and sensitiveness, whilst not being less prolific in yield.

If, as suggested, coffee planters elsewhere made a point of studying the estates in Sao Paulo they would understand why those on the plains yield only mediocre crops, *viz.*, on account of the cold winds and, as a rule, a poorer type of soil. Some spots on the lower land, however, yield fairly good crops if the ground is not damp and marshy. No growth of coffee has been subject to such extremes in the value of its average and cheaper grades, as coffee from Sao Paulo, and those estates whose coffee comes into competition with average Santos will experience the same fate, with a tendency towards chronically low prices, unless by scientific cultivation and adequate, suitable manuring they raise the quality of their crop, as can be done, to a noticeable degree above the average quality from Sao Paulo. In 1906-1908, when such coffee was almost as cheap as chicory owing to there being a surplus of about 17,000,000 bags, against about 6,000,000 bags and upwards at more normal times, grades such as fine blue mountain Jamaica actually rose several shillings in price. All these little facts must be watched and noted by planters elsewhere if they wish to be successful, for the estate that comes full tilt against the Sao Paulistas as a competitive group of coffee producers and sellers during a period of over-production is certain to have a very lean time if the owner is not actually starved out. On the other hand, by cultivating a better variety of coffee at the start, excluding the Bourbon variety, for instance, giving their lands proper tillage, manures and shade when needed, the coffee planter at a centre, other than in Brazil, should turn out a sufficiently higher grade to be sold independently of the low prices realised by the over-produced Rio or Sao Paulo grades in certain years. When such coffee was selling at between 18s. to 30s. instead of over 50s., Blue Mountain coffee from Jamaica actually advanced some eight or ten shillings.

We have just said that shade must be given to coffee when needed, but there is a wealth of controversy in that word "when." Truly it is a case of "To be or not to be" shaded. Later on the matter will be discussed as fully as space allows, but at the moment we would like to quote Mr. O. G. Cook's idea on the matter, when he drew up his famous report in 1901 on "Shade in Coffee Culture," so that our readers can compare what he said with present-day views.

"The question of shade in coffee culture is fundamental," Mr. Cook urged, "in the sense that from the clearing away of the forest to the harvesting of the crop, the operations of the plantation are largely influenced or determined by the presence or absence of shade trees. The selection of suitable sites for plantations, whether the forest shall be completely destroyed or merely thinned out, which trees to leave for shade, or which to plant in advance of the coffee, how to lay out the plantation, the spacing of the trees, drainage, cultivation, catch-crops, soiling-crops, weeding, fertilisers, and irrigation—none of these details can be intelligently dealt with until a decision has been reached in the matter of shade. Not that a general decision for or against shade is to be expected. Shade is a cultural

decision which each planter must decide from the study of his local conditions. There are soils and climates where shade-trees are unnecessary or even harmful; there are others where leguminous shrubs or herbs can be utilised to much better advantage than trees, but in the broken and mountainous regions, where a large proportion of the world's coffee crop is grown, and in arid regions where a great extension of the industry is possible, leguminous trees have, and will doubtless continue to have, enormous agricultural importance. To determine the true extent of the utility of shade-trees and of the different kinds of trees adapted to this purpose is a scientific problem which should receive early experimental attention."

To-day we believe that, unless irrigation is possible, planters would be well advised to avoid arid regions unless already established there. In the latter case a careful study of our book on the *leguminosae* family of plants will be found most useful, whether they are wanted for green manuring, to prevent soil erosion, evaporation from the soil, or for other purposes. The only comment we have to make on the utilisation of forest trees for shade is their tendency to develop surface roots owing to the struggle for existence. This renders them liable to fall and damage the trees around when brought into contact with the wind out in the open.—*Tropical Life*.

THE UNITED STATES.

Whatever the German Press may say about the effect of the United States entering the war, German business men can be under no misapprehension concerning the new phase of the conflict as a factor in trade. They know that the financial support given to the Allies will be practically unlimited, and, what is more to the point, that it will be immediate. They know that an incredible number of excellent business prospects will be ruined. They are as well informed as anyone concerning American financial resources, and they also know that whereas American investments in Germany are virtually nil, Germany has invested some £200,000,000 in American corporations, to say nothing of credits and actual goods.

The resources which the United States can throw into the scale may be imagined from the following tabloid statement from the *New York Times*:—Annual national income, £10,000,000,000; total bank resources, £7,000,000,000; individual deposits, £4,800,000,000; cash held by the bank, £500,000,000; total gold stock £600,000,000; available additional commercial credits on the basis of present cash holdings, £1,200,000,000.

The most striking factor which emerges from the new phase of the war, however, is the appropriate nemesis which has overtaken the rabid U-boat campaign. While the Huns are so busy dislocating our export trade by sending good ships to the bottom we are provided with the unique spectacle of the wholesale seizure of German vessels in American ports.—*Export World and Commercial Intelligence*.

The total value of imports of foreign merchandise (excluding Government stores) into British India in 1916 was £97,423,500, as compared with £83,761,868 in 1915 and £104,377,163 in 1914. The value of exports of Indian merchandise was £149,690,252, as compared with £118,968,634 in 1915 and £138,268,990 in 1914. The 1915 figures include wheat exported on Government account, amounting to £4,590,637, and the 1916 figures include the value of wheat (£891,035) and tanned cowhides (£687,939) exported on Government account.—*Export World and Commercial Intelligence*.

CORRESPONDENCE.

Carolina Tea Estate,

Coonoor,

July 11th, 1917.

TO THE EDITOR,

Planters' Chronicle,

Bangalore.

Sir,—I was much interested by the information re *Tridax procumbens* contained in the letter of the Deputy Director of Agriculture, Planting Districts, in your issue of the 7th instant.

I have since heard from others that the weed is very common on the plains, and I noticed recently that there are great sheets of the plant in full flower by the railway line particularly between Kullar and Adderley stations. The plant is in full flower now, and there are large quantities of fluffy seed too on the plants. On a recent trip to the plains I looked carefully for the plant from Coonoor to about two miles beyond Kullar, and found that the first clumps of the plant are to be seen, about one mile above Hillgrove station (say 3600 feet,) and the plant is found growing more and more plentifully the lower one gets till it attains its climax above Kullar where it is very bad. (Kullar is 1250 feet). I could not detect any specimens between the spot above Hillgrove station abovementioned, and the great mass of it on the embankment in the Coonoor Railway Station yard next the Engine shed, from whence doubtless it will spread all over Coonoor estates in a short time, as it is full of seed.

Mr. A. Descubes, the botanical artist of Ootacamund who first named the plant for me, informs me, in reply to my enquiry asking him in what parts he has hitherto seen the plant, that he has seen the plant growing in Dehra Dun, but that it has not yet attained to its climax there. In the island of the Mauritius however, Mr. Descubes adds it has become a very serious pest, as also in many parts of America.

As we have already a large number of Mexican weeds which have become a serious nuisance, such as *Eupatorium glandulosum*, (the white flowered "ageratum" of Ootacamund proscribed by the Ooty Municipality under the wrong name of "*Adenostemma vicosum*"), the blue-flowered *Ageratum conyzoides* of Coonoor (also called *A. Mexicana*, Blue floss-flower,) etc., etc., it appears to me that if the advance-guard of the new Coonoor pest is rooted out wherever seen, we shall be spared from another pestilent weed.

I am wondering how it is the weed has appeared in the Coonoor Railway Station yard only. Can it be a case of a passenger travelling without a ticket on the roofs of the Railway carriages, etc.!!!!

Yours faithfully,

CHAS. E. BROWN.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 29.] JULY 21, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We publish the proceedings of the Quarterly General Meeting of the Nilgiri Planters' Association and note that Messrs. A. S. Dandison and J. B. Leslie-Rogers have been elected delegates to the forthcoming Annual Meeting of the U. P. A.

As regards the prohibition of coffee exports from India into the United Kingdom, it will cause a righteous indignation amongst all planters, when it is known that 140,000 bags of coffee were shipped from Brazil ports *after the date* of the Proclamation, and were admitted into London without hindrance. On the other hand the Board of Trade put an embargo on all E. India Coffee shipped, after the date of the Proclamation, directly it arrived. We believe strong remonstrance will be made.

We publish the Minutes of the Half-yearly Meeting of the Anamalai Planters' Association. Messrs. C. Fraser and C. R. T. Congreve have been elected delegates to represent it at the forthcoming annual meeting of the U. P. A.

We also publish the proceedings of a Quarterly General Meeting of the Shevaroy Planters' Association. We regret that this Association has decided not to send a Delegate to the Annual Meeting of the U. P. A. S. I. this year. We trust they will reconsider this decision and not break the continuity of useful service.

We publish our weekly article on Markets, Prices and Statistics.

We are indebted for an article on Home made Remedies against some plant pests to the Department of Agriculture, Madras.

In the absence of the Director of Agriculture, Planting Districts, we publish at the request of Mr. Robt. Stanes a letter. If properly approached, we have no doubt, but that the Deputy Director of Agriculture will do as requested.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged ...	...	61,484	8	2
Mr. A. J. Wright (April) ...	...	20	0	0
Mr. A. Ff. Martin (April May and June) ...	...	75	0	0
"Three Card Trick" ...	...	2	0	0
Total Rs...		61,581	8	2

DISTRICT PLANTERS' ASSOCIATIONS.**Nilgiri Planters' Association.**

Proceedings of the Quarterly General Meeting held at the Collector's Court, Ootacamund, at 11.45 a. m. on Thursday the 5th July, 1917.

PRESENT.—Mr. A. S. Dandison, (Chairman), Mr. L. A. Gerrard Rogers (Vice-Chairman), Mr. J. B. Vernede, Mr. W. A. Cherry, Mr. J. E. Bisset, Mr. D. Elkington, Captain L. L. Porter, Mr. E. Lumsden Egan, Mr. E. Sydenham Clarke, Mr. B. Marden, Mr. A. R. Pigott, Mr. J. Harding Pascoe, Mr. P. L. D. Beaver, Mr. A. K. W. Downing, Mr. N. Grey, Mr. C. W. Deane, and Mr. J. B. Leslie-Rogers, (Honorary Secretary.)

VISITOR.—The Hon'ble Mr. A. R. Knapp, I.C.S.

(1.) **PREVIOUS PROCEEDINGS.**—The Proceedings of the last Extraordinary General Meeting of the 21st June, 1917, were read and confirmed

(2.) **AGENDA OF THE ANNUAL MEETING OF THE U. P. A. S. I. ON THE 20TH AUGUST, 1917.**—Resolved that besides the items already on the above Agenda the following be included for discussion on the occasion, *viz.*, (a) Equivalent Import Duty on Ceylon Tea imported into India; (b) Imperial Preference for Indian Tea; (c) Improvement in quality of tea. —The Association's Delegates: Messrs. A. S. Dandison, and J. B. Leslie-Rogers were elected to represent the Association at the U. P. A. S. I. Annual Meeting at Bangalore on the 20th August 1917.

(3.) **GENERAL SERVICE MEMBERS OF THE INDIAN DEFENCE FORCE.**—The question of assisting in the selection of planters for General Service was considered, and it was resolved that to the list now before the Meeting, showing names, ages, and addresses, be also added the actual acreage in charge of each man; and that the list thus prepared be submitted to the Selection Committee for their information and guidance.

(4.) **WASTE LANDS AND DARKHAST RULES.**—Read correspondence, forwarded by the U. P. A. S. I., from the Secretary to the Commissioner of Land Revenue, Madras. Resolved that the correspondence be recorded pending receipt of further information from the Board of Revenue.

(5.) **PROHIBITION OF COFFEE EXPORTS FROM INDIA INTO THE UNITED KINGDOM.**—Resolved that the Members be informed that representations made at Home show that the Shipping Controller considers it impracticable in existing circumstances to permit the import of more coffee, and is therefore unable to allow further tonnage for the purpose at present. It is however hoped that this prohibition is only a temporary measure.

(6.) **FINANCIAL POSITION OF THE PLANTING INDUSTRY AND THE U. P. A. S. I. MEETING IN MADRAS.**—Resolved: That the Association supports the action taken by the U. P. A. S. I. in the matter, and confirms the Resolutions passed at the Madras Meeting.

(7.) **DISTRIBUTION OF TEA ALLOTMENTS FOR SHIPMENT TO THE UNITED KINGDOM AND ELSEWHERE.**—In connection with this question, the Resolutions of the late Calicut Meeting have been circulated among the Tea Planters of the Nilgiri District, and the following information has been called for, *viz.*, (a) clearly stated estimates of tea crops of all estates for the current season, 1917; and (b) correct figures of actual tea crops of estates during the last two years 1916 and 1915. The above information is being collected by the Honorary Secretary and will be duly submitted before the 21st July to the District Committee for examination,

and early despatch to the U. P. A. S. I. As the matter is urgent all concerned are earnestly required to forward the above information to the Honorary Secretary without further delay.

(8.) LABOUR RECRUITING DISPUTE.—The correspondence on the subject submitted by the Wynaad Planters' Association has been duly considered, and this Association regrets the unfortunate situation, and advises members to be very careful in future regarding advances to new maistries.

(9.) IMPROVEMENT OF STATISTICS OF TEA PRODUCTION.—Read communication from the U. P. A. S. I. forwarding copy of a letter on above subject from the Director of Statistics, Government of India. Resolved, that (a) as regards the procuring of returns from estates, such statistical information should in the opinion of the Association be procured by Government in the first instance through the various District Planters' Associations, which include the majority of estates. The minority of non-reporting estates, outside such Associations, should be approached direct by Government, and penalised if necessary if they obstruct the collection of information in the public interests; (b) that it is not considered necessary nor advisable to publish statistics of individual estates in the Annual Report of the Government Statistical Department; (c) that the present system of preparing statistics of production for the calendar year, and comparing the same with exports of the official year ending March, appears satisfactory and no change is considered necessary.

(10.) TRADE INTRODUCTIONS.—The Association is frequently in receipt of business communications referring to matters connected with the buying and selling of produce and the management and work of estates generally, and in these cases the Honorary Secretary is usually expected to put the writer in touch with such estates as are likely to yield the most profitable results. Inquiries of this nature may often lead to expansion of business, but as it would be unfair and invidious to make distinctions between one estate and another in business opportunities, it is considered desirable that some other method of dealing with such information should be initiated. The following procedure, suggested by the Honorary Secretary it is believed will meet the wishes of all concerned, namely that a brief summary of all applications for trade introductions received by the Association should be circulated for the information of every member, leaving it to those who happen to be interested in any particular enquiry to communicate direct with the writer. The latter would at the same time be informed by the Honorary Secretary that his enquiry had been circulated among the members of the Association, and that those interested in the matter referred to would probably put themselves in direct communication with him.

Proposed by Mr. J. Harding Pascoe, and seconded by Mr. W. A. Cherry, and carried unanimously:—"That the Honorary Secretary's proposal be adopted, with a vote of thanks from the Association."

11. INDIAN TEA ASSOCIATION'S CIRCULARS.—These were read and recorded.

12. U.P.A.S.I. CIRCULARS: (a) PERCENTAGE OF SALARIES.—Regarding the suggestion put forward, that only a percentage of salaries might be paid during the existing financial difficulties, the balance being paid as soon as practicable, the Association is of opinion that the question is outside its scope, and should be left for arrangement, if necessary, between employers and employees.

(b) TRIDAX PROCUMBENS.—Read letter in the *Planters' Chronicle* of the 23rd Jule from Mr. C. E. Brown drawing attention to the appearance

of this plant in the neighbourhood of Coonoor ; and also a communication on the subject from U. P. A. S. I. requesting to be informed whether the Association wished the *Tridax Procumbens* proscribed under Pest Act.

Proposed by Mr. J. B. Leslie-Rogers, and seconded by Mr. A. K. W. Downing and carried unanimously. " That as the *Tridax Procumbens* has for many years been a fairly common weed in Southern India, and has hitherto not proved to be obnoxious nor dangerous to cultivation, further observation and fuller information are necessary before any definite opinion can be given. That Mr. Brown be thanked for calling attention to the matter, and Government be informed that the Association does not, in present circumstance, consider it desirable to have this plant proscribed under the Pest Act.

(c) FOREIGN TEAS.—The Association highly appreciates the action of Australia in excluding for the present all foreign teas from the Commonwealth ; and approves of the message forwarded by the Chairman of the U. P. A. S. I., conveying the thanks of the Southern India Planters to the Australian Government.

(d) CINCHONA ANALYSIS.—Regarding the representation made to Government, through the Hon'ble Mr. E. F. Barber, that samples of bark sent by planters might be analysed for a fee, the members are now informed that owing to press of work in Cinchona Factories, Government regrets it is unable to comply with the request at present.

(13) MISCELLANEOUS CORRESPONDENCE.—Letters on the following subjects were brought before the Meeting and recorded, *viz.*, (a) Restrictions in booking Goods Traffic to Stations on and *via* the G. I. P. Railway ; (b) Devamulla Forest Reserve ; (c) Cattle Pounds and the enhancements of fines ; (d) Collection of rainfall statistics and other information in connection with Green Bug ; (e) Government License regarding the Cherambadi burial ground ; and (f) The Government Report on the Planters' Labour Act.

At the conclusion of the Meeting the Members present made a collection of all available ready money in the room and presented the sum of Rs. 16 through the Hon'ble Mr. A. R. Knapp to Mrs. Cumming, President of the Ladies War Work Fund. The Meeting then terminated with a vote of thanks to the Chairman, and to the Hon'ble Mr. A. R. Knapp, and Mr. A. R. Cumming the Collector, for kindly placing their rooms in the Court Buildings at the disposal of the Association.

(Signed) A. S. DANDISON,

Chairman.

(„) J. B. LESLIE-ROGERS,

Honorary Secretary.

Anamalai Planters' Association.

Minutes of the Half Yearly General Meeting of the Anamalai Planters' Association, held at the Club, at 10 a.m., on July 9th, 1917.

PRESENT.—Messrs. J. Hatton Robinson (Chairman) G. A. Marsh, S. Sladden, E. W. Simcock, B. M. Behr, J. H. Ireland-Jones, D. Cooper, J. E. Sampson, J. O. K. Walsh, H. O. D. Walsh, J. E. Scott, J. A. R. Lloyd, H. O. Combe, C. Fraser and C. R. T. Congreve (Honorary Secretary). *Visitor*.—Mr. H. W. De Salis. *By proxy*.—Mr. J. D. Brewer.

The Minutes of the Extraordinary General Meeting, held on May 16th were confirmed.

Mr. H. O. Combe, proposed as a member of the Association by Mr. Robinson and seconded by Mr. Behr, was elected.

The accounts and estimate for the year were gone into and approved.

Delegates to the Annual General Meeting of the U. P. A. S. I:—Messrs. C. Fraser and C. R. T. Congreve were elected.

The U. P. A. S. I. Agenda was then discussed.

ROADS. (ANAMALAI GHAT ROAD).—Mr. Robinson spoke on this subject, and the delegates were asked to bring up a strong resolution about the present state of the roads. It was proposed by Mr. Marsh, and seconded by Mr. Simcock that a Sub-Committee composed of Messrs. Robinson, Fraser and Congreve be elected to draft the resolution. (Carried unanimously).

IMPORT DUTY ON TEA.—The Association considered that this subject should again be brought up especially now that the exports of tea to the United Kingdom are so restricted and it was proposed by Mr. Robinson, and seconded by Mr. Behr that a Sub-Committee composed of Messrs. Simcock, Fraser and Congreve be elected to draw up a resolution (Passed unanimously.)

THE U. P. A. S. I. LABOUR DIRECTOR'S REPORT AND ACCOUNTS.—The meeting approved of the Committee's action in instructing the Honorary Secretary to write and ask that these might be circulated to District Associations before the Annual Meeting, and were of opinion that detailed accounts should be asked for showing the amount spent on each agency, the acreage subscribing to each and the number of coolies who are passed through each, to enable these to be inspected by subscribers and instructions given to delegates.

TOWNSHIP.—The Sub-Committee's report and draft of the Honorary Secretary's letter to the Collector were gone through and approved.

WESTERN OUTLET.—The question of alternate outlets to the District if the Cochin Tramway falls through were gone into, and it was decided that an Aerial Ropeway was quite out of the question.

MEDICAL.—The question of supplying a conveyance for the use of the Sub-Assistant Surgeon was brought up by Mr. Simcock, and after considerable discussion, the Honorary Secretary was requested to write to the Collector and point out that the Sub-Assistant Surgeon finds it extremely difficult to get about the district owing to want of a conveyance of any sort and to ask if an allowance for pony is allowed.

POST & TELEGRAPHS.—The following resolution proposed by Mr. Sladden and seconded by Mr. Sampson was passed unanimously:—

"That the Honorary Secretary should write a strong letter of protest to the Superintendent of Post Offices, pointing out the great inconvenience which is caused to residents in the District by inefficient work at the local post office. Letters which are plainly addressed being repeatedly forwarded to the wrong people and that no trouble appears to be taken as regards letters, etc., addressed to the Indian employees on the different estates."

LABOUR.—An animated discussion took place on the subject of the Free Coolies. Mr. Simcock maintained that as there were still some of these in the district and as more had come up within the last month, proper arrangements should be made for police protection. He proposed the following resolution which was seconded by Mr. Scott and put to the meeting and lost by 991 votes to 338:—

"That as Criminal Coolies have returned to an estate on the Anamalais the Honorary Secretary be asked to write to the Collector of the district for information, asking on what condition these Criminals have been allowed to return, and if there is the likelihood of more coming."

Mr. Behr proposed the following amendment which was seconded by Mr. Fraser and was passed by 991 to 338 votes:—

"That the matter of the return of a small number of Criminal coolies from leave be left over till this Association hears the result of Mr. Lloyd's correspondence with the District Superintendent of Police on the subject."

LOCAL LABOUR RULES.—The following resolutions proposed by Mr. Scott and Mr. Simcock respectively, and seconded by Mr. Congreve were passed unanimously:—

"That any Contractor on an Estate Register, if he absconds to another estate and is found there working as a maistry or coolie, if claimed within three months shall be sent back without demur, unless the estate he has been found on is agreeable to take over his debt."

"That if a Contractor bolts directly from one estate to another with his coolies and is claimed within 15 days by the estate from which he bolted, he and his coolies, shall be returned without demur."

WARRANTS.—Mr. Behr said that he believed that in some other districts when a warrant was returned unexecuted to the issuing Magistrate it was placed on a pending file and that if and when the whereabouts of the defaulter were discovered, it was only necessary to apply for the warrant to be again sent out. He understood that in this district when a warrant was returned unexecuted it was withdrawn, and that if and when the defaulter was discovered it was necessary to take out a fresh complaint which caused unnecessary delay and expense. He therefore moves the following resolution which was seconded by Mr. Congreve and passed unanimously:—

"That the District Magistrate be asked to instruct the Sub-Magistrate Pollachi to place on a pending file for 9 months all cases in which the warrants have been returned unexecuted by the Deputy Director of the Labour Department under Government Order No. 101 of 1916, Judicial.

FINANCING OF ESTATES.—The Honorary Secretary read the Minutes of the Committee Meeting, held in Madras by the Committee appointed at the Madras Meeting, held on 30th May, 1917.

Before closing the meeting the Chairman said he was very glad to welcome Mr. De Salis, who joined the Army at the beginning of the war, and trusted he would enjoy his holidays in the district.

With a vote of thanks to the Chair the meeting terminated.

(Signed) J. HATTON ROBINSON,

Chairman.

(„) C. R. T. CONGREVE,

Honorary Secretary.

Shevaroy Planters' Association.

Proceedings of a Quarterly General Meeting of the Shevaroy Planters' Association, held at the Victoria Rooms, Yercaud, on 13th July, 1917.

PRESENT.—Messrs. S. Campbell, E. Travers-Drapes, V. Travers-Drapes, R. A. Gilby, R. W. B. Gompertz, C. G. Lechler, W. I. Lechler, J. C. Large, F. Pegg, E. L. Poyser, W. Rahm, L. E. T. Short, C. K. Short, V. S. Wooduviss and Ch. Dickins (Honorary Secretary).

1. The notice calling the meeting was taken as read.

2. **THE COLLECTING OF HONEY AND DESTRUCTION OF BEES ON THE HAWTHORNE AND PILLYOOR CLIFFS.**—Read letter dated 3—6—17 from Mr. E. Travers-Drapes drawing the attention of the Association to the above matter.

Read letter No. 286 dated 20--6--17 from District Forest Officer, S. Salem, stating that he has written to the Range Officer, Papireddipatty for immediate report, on receipt of which further action will be taken.

The Honorary Secretary was requested to keep the matter in view.

3. RULES UNDER MADRAS COFFEE STEALING PREVENTION ACT,—Read G. O. No. 994, dated 11th May, 1917.

DRAFT AMENDMENTS FORM A.—(1) The words "receiving" in para. 6, and "receiver" in para. 7, being ambiguous, the Honorary Secretary was instructed to write and inform the Collector and District Magistrate that the Association kindly request in para. 6 the words "person receiving" be replaced by "consignee of." (2) Also in para. 7 the word "receiver" be replaced by "Consignee" as "consignee" is the word used in the original Act and in the Draft Permit Form B.

DRAFT AMENDMENT FORM B.—In continuation of his letter dated 23--6--17 to the Collector and District Magistrate, the Honorary Secretary was instructed to further point out that this Association is of opinion that in the Pass (1) The "name of the consignor or person in charge" should be substituted for the heading—"This permit covers;" in accordance with the intention of Section 10 read together with para 2 of Section 3 of the Act, (2) That instead of the heading "Means of Conveyance" the "No. and method of Conveyance" be substituted. Also (3) *Printing and supply of pass Books*. That the Honorary Secretary be requested to address the Collector and District Magistrate, Salem, requesting that Government undertake the printing and supply of Pass Books and that they be issued *at an early date* for sale at all local cutcherries.

4. THE MANGAVADI GHAT.—Read letter dated 30th June 1917 from the Hon'ble Mr. E. F. Barber and letter dated 27th June for the Chief Engineer. The Honorary Secretary was instructed to thank Mr. Barber for the trouble he has taken in the matter of the Mangavadi Ghat Road connections and to point out that there is no one among the planters here who is sufficiently competent to survey, estimate and plan a work of this nature, but if Government would be good enough to do this part of the work, the planters interested would undertake the execution of the same at the lowest possible cost, and within the estimate.

5. ELECTION OF AUDITORS.—Messrs. C. Rahm and E. Travers-Drapes were elected to audit the Shevaroy Planters' Association accounts before the Annual General Meeting.

6. DARKHAST RULES.—Read letter dated 26th June 1917 from Secretary, U. P. A. S. I., together with copy of Rules.

It was decided to postpone this subject and the Honorary Secretary was instructed to invite the Deputy Tahsildar to meet the members at the S. G. Meeting arranged for 20th.

7. U. P. A. S. I. AGENDA.—This Association having no subject to bring up at the coming U. P. A. S. I. Meeting it was decided not to send a Delegate down this year.

With a vote of thanks to the Chair the meeting terminated.

(Signed) CH. DICKINS,

Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Monthly statistics to 31st May.			1917.	1916.
EAST INDIA—			tons.	tons.
Landed to 31st May	...	...	1,317	1,930
Delivered to 31st May	...	...	724	937
Stock on 31st May	...	...	1,360	1,879

COFFEE OF ALL KINDS—

Stock in United Kingdom on 31st May	...	45,900	33,000
Total European Imports to 31st May	...	100,540	178,700
Total European Deliveries to 31st May	...	122,005	179,415
Total European Stock on 31st May	...	204,000	205,590
World's Visible Supply on 31st May	...	477,880*	457,470

* A decrease of 67,005 tons compared with a decrease of 35,530 tons last year.

Offerings at auction have been :—

				24 May 5 June.	Since 1st Jan.	Last Year.
East India	...	...	...	5,259	9,631	24,161
Costa Rica	...	...	...	5,627	55,270	74,887
Other Milds	...	...	...	2,430	28,962	53,325
Brazil	...	...	...	251	58,646	47,206
Robusta	...	...	...	Nil	689	627
B. E. A.	...	...	...	110	4,398	7,354
Uganda	...	...	...	90	10,804	

The offerings since auctions were resumed have been heavier than for a long time past. Home trade kinds have met with fair demand at steady prices, but all other classes are very difficult to move.

The following prices have been obtained for South Indian Coffee :—

	No. 1.	No. 2.	No. 3.	P. B.	T.	Average.
MYSORE.						
Cowcoody	... 43. 94/-	47. 91/-	17. 88/6	14. 97/-	8. 86/-	92/-
Gorrayhatti	... 51. 102/6	32. 98/-	1. 82/-	8. 109/6	5. 87/6	100/7
Yellimudloo	... 38. N.	40. 85/-	...	11. N.	24. N.	...
Hirvati	... 36. N.	11. 90/6	1. 80/-	10. 100/-	2. 81/6	...
Ubban	... 40. 93/-	13. 90/-	2. 83/-	10. 100/-	2. 82/6	92/10
Dataypore	... 60. N.	20. 91/6	7. 83/6	12. 106/6	11. 85/-	...
	36. 94/-	39. 91/-	...	...	...	...
Utollalu	... 39. 90/-	14. 88/-	1. 79/-	10. 98/6	2. 81/-	90/5
Sumsay	... 48. N.	55. N.	8. N.	8. N.	18. 76/6	...
Hardwone	... 38. N.	21. N.	2. N.	14. 87/-	7. 77/-	...
Sathkodigi	... 46. N.	27. 80/-	3. N.	16. 88/-	10. 75/6	...
Bellagode	... 56. N.	48. 88/6	5. 82/6	17. 109/6	6. 84/-	...
Cannon M.	... 131. N.	52. N.	6. 87/6	16. N.	18. 85/6	...
Moodsoosie	... 38. 92/-	23. 90/-	3. 81/6	10. 100/-	7. 86/-	91/6
Tollol	... 62. N.	25. 88/6	4. 81/-	14. 94/-	7. 79/6	...
Guntanaik	... 86. N.	72. N.	9. N.	29. N.	20. 78/-	...
Bibbenluke	... 34. N.	24. 83/-	1. 75/-	8. N.	10. N.	...
Netrokul	... 40. 87/-	26. N.	2. 75/-	10. N.	9. N.	...
Honeyvale	... 82. 95/-	21. N.	4. 83/-	7. 106/-	8. 84/-	...
H.C. S.	... 82. N.	13. N.	1. 85/-	12. 109/6	6. 86/-	...
Cullaly	... 63. 87/-	31. 82/-	2. 77/6	14. N.	10. 78/-	...
Karredekkam	... 131. N.	66. N.	3. 75/-	27. N.	17. N.	...

	No. 1.	No. 2.	No. 3.	P. B.	T.	Aver- age.
COORG.						
Hallery ...	38. N.	27. N.	6. 84/-	6. N.	6. 82/6	...
Covercooly ...	27. N.	27. N.	5. N.	9. N.	6. 83/-	...
Santagherry ...	81. N.	24. N.	...	8. N.	11. 81/-	...
Corringabetta ...	77. 86/-	38. 82/-	1. 78/-	13. 90/-	17. 80/-	84/6
Eliza ...	36. 91/-	...	...	...	...	...
Aynsley ...	65. 93/6	43. 88/-	6. 84/-	16. 97/-	17. 88/6	91/9
Bellarimotte ...	32. N.	26. 86/6	...	5. 95/-	8. 82/6	...
Abial ...	83. 91/6	28. 87/6	2. 81/-	12. 94/6	8. 80/6	89/11
Netley ...	83. N.	22. 84/-	1. 79/-	21. 91/6	16. 80/-	...
Santikoppa ...	155. N.	76. N.	...	23. N.	36. N.	...
ANAMALLAIS.						
Palagapandy ...	88. N.	15. 89/-	1. N.	6. 93/-	6. 83/-	...
Kollengode ...	88. N.	24. N.	2. N.	8. 94/-	9. 82/6	...
Animad ...	134. 89/6	51. 84/-	5. 79/6	16. 98/-	26. 82/-	87/10
Valparai ...	20. 91/-	27. 86/-	9. 82/6	6. 95/6	5. 81/-	89/8
Paralai ...	31. 92/6	32. 89/6	14. 86/6	8. 106/6	10. 82/6	91/4
NILGIRIS.						
Barwood ...	26. 92/6	12. 91/-	...	2. 96/-	2. 82/6	...
NELLIAMPATHIES						
Manalore ...	43. N.	10. 84/6	1. 79/-	4. 88/-	4. 78/-	...
Chandramulla ...	34. N.	19. 84/6	1. 79/-	4. 86/6	4. 78/-	...

Tea.

Writing on 6th June Messrs. T. H. Allan & Co. say that in anticipation of the new regulations shortly to be introduced under which teas will be graded according to a fixed scale of values, prices have been very irregular, the better kinds keeping fairly steady, but medium and common showing a drop of 2d. to 3d.

The following prices were obtained for South Indian teas at the London sales on 4th and 6th June:—

	BOP	O.P.	B.P.	Pek.	P.F.	BPF	Fgs.
TRAVANCORE.							
Bonami ...	1/7	...	1/5	1/4½	...	...	...
Mount ...	1/8¾	...	1/7	...	...	...	1/6½
Thengakal ...	1/7½	...	1/6	...	...	...	...
Nellikai ...	1/7½	...	1/6	...	...	1/5¾	...
Balamore ...	...	...	1/6½	1/5½	...	...	...
Glenmore ...	...	...	1/6½	1/5	...	...	...
Lockhart ...	1/8½	...	1/7	...	...	...	...
Wallardie ...	1/7½	...	1/6½	...	1/6	...	...
Poonmudi ...	1/6½	...	1/5¾	1/5½	...	...	...
Stagbrook ...	1/7	...	1/6½	...	...	...	...
Kaduwanum ...	...	...	1/5½	1/5	...	...	...
NILGIRIS.							
Cherakara ...	...	...	1/6½	1/4½	...	...	...
Daverashola ...	1/8¾	...	1/7½	...	...	...	...
Woodbriar ...	1/8¼	...	1/6¾	...	...	...	...
Mayfield ...	1/7¾	...	...	1/6	...	...	1/7
WYNAAD.							
Arrapetta ...	1/6¾	...	1/6	...	...	...	...
ANAMALLAIS.							
Paralai ...	1/7¼	1/5½	1/6½	1/5	...	...	1/6½

R. D. A.

HOME MADE REMEDIES AGAINST SOME COMMON PLANT PESTS.

Leaflet No. 5 of 1917 of the Department of Agriculture, Madras, compiled by the Acting Government Entomologist deals with this subject and is reproduced below :—

Frequent enquiries are received from different parts of the Presidency asking for simple control measures against some common insect pests found in kitchen gardens, hot houses, flower and fruit gardens. It is, therefore, believed that the following few directions might be of some help in devising measures to control these troublesome pests.

The commonest of these pests are the following :—

(i) *Plant lice*.—There are very few plants which are not infested by plant lice. These are small soft bodied insects commonly found in colonies on the tender portions of plants, such as shoots, tender foliage, buds, flowers, etc. They are sucking insects and so pump the plant sap from these tender portions. When a plant is badly infested the shoots and buds suffer badly; the leaves become curled up, the growth of the shoots is checked, and the affected parts gradually dry up and wither.

When closely examined each louse will be found to be provided with three pairs of legs, a pair of feelers and a sucking tube below the head. In addition to these is a pair of small tube like projections, one on each side of the posterior end of the body; these are called "honey tubes" because the insect throws out a sweet juice from these tubes and ants are attracted in numbers on this account. Ants very rarely do damage to growing crops. When they are seen in numbers on plants, one can almost be sure they are in search of plant lice or other similar insects infesting the plant. The great majority of the lice in a colony are wingless and move about very slowly. The commonest example of a plant which suffers from plant lice attack is the Lab-lab vine; thousands of the lice are often found completely covering the tender vines, shoots and flowers. Cotton, Tobacco, Brinjal, Cabbage, Radish, Agathi, etc., are other common plants often suffering from attacks of plant lice.

(ii) *Mealy bugs*.—These are also sucking insects like plant lice and affect the plants in the same manner. But they differ in appearance. Mealy bugs are soft creatures generally covered with a powdery white bloom; some are profusely covered with this stuff while in others it is scanty and in some others the white covering is arranged as long processes proceeding from the body of the insect. The name of the bugs is due to this covering. Mealy bugs also move very slowly when they do so. A common example of a mealy bug is the white cottony insect that infests crotons, roses and other garden plants. Mealy bugs of different kinds infest different plants, such as Cotton, Brinjal, Mango, Sugarcane, Pine-apple, Tomato, etc.

(iii) *Scale insects*.—Though in habits these are also sucking insects and injure the plant in the same way as the first two, in appearance they look like non-living things. Scale insects are all fixed to the plant during their adult condition and most of them appear like scales attached to the plant surface. They infest shoots, branches and even the main stem of plants. Fruit trees and industrial crops like coffee, tea, etc., suffer most

from these insects. Well known examples of scale insects are the brown and green bug of coffee. Other familiar examples can be found on Guava, Nin, Babul, Mango and other common plants.

All these insects have the power of multiplying enormously and very rapidly and hence they are capable of doing substantial damage if not checked in time. To check their injuries the following applications which can be easily made by any one at home are recommended.

Kerosene emulsion.—This is prepared as below. Dissolve one to one and a half pounds of any ordinary bar soap in a gallon of water and while it is boiling remove from the fire and add two gallons of kerosene by slowly pouring it over the soap solution and while doing so thoroughly agitate the whole with a syringe or pump until the whole becomes a white creamy emulsion. This, when wanted for use, may be mixed with 50 gallons of cold water and then sprayed on plants attacked by sucking insects. The mixture may be made strong or weak as necessary by reducing or increasing the proportion of cold water. With hard water more soap should be used. This can be used against plant lice, mealy bugs and all soft scale insects with good effect by bringing up the solution to sixty or seventy gallons. In the case of hard scales and active bugs like leaf hoppers a stronger dose, 30—40 gallons, must be used. This preparation can also be used as a wash on cattle infested with vermin.

Tobacco decoction.—This insecticide is made by boiling a pound of tobacco (the refuse stems and powder will do very well) in a gallon of water for half an hour or by steeping it in cold water for a day. In the tobacco decoction, dissolve four ounces of any ordinary bar soap. This soap and tobacco mixture when cool is to be diluted with six or seven times of water and sprayed on the infested plants. This will be found useful against plant lice and mealy bugs affecting those plants where we use the foliage instead of the fruit or where the fruit or other edible portion is attacked, and where we would like to avoid the smell of kerosene. This is the case when the tobacco plant itself is attacked by plant lice as is very often the case. Dry tobacco dust can also be applied to the soil around vegetables to drive away pests of different kinds.

When infested leaf vegetables like cabbage, cauli-flower, etc., which may have to be cut soon for consumption have to be treated the following simple but temporary insecticides might be used instead of using kerosene emulsion or tobacco decoction which might leave traces of kerosene or tobacco smell, if at all.

Soap solution.—A quarter of a pound of soft soap mixed with one gallon of water might be applied once a week two or three times.

Naphthalene.—For plant lice powdered naphthalene mixed with ashes in the proportion of one to two may be applied dry. This must be used early in the morning when the leaves might be wet with dew or after a spraying with cold water so that the powder might stick. The advantage in using naphthalene is, that it is harmless, effective against insects and evaporates in 24 hours leaving no trace of its smell on the plants.

For some of the scale insects which possess hard scales and against which kerosene emulsion is not so effective a preparation called *Rosin compound* may be used. It is made as follows:—

Two pounds of rosin and a pound of washing soda are well powdered and boiled in a vessel with sufficient water to cover them ; the boiling should continue until both are well dissolved. Add cold water little by little to the boiling mixture until the whole is brought to three gallons. Continue the boiling until the mixture becomes clear and thin and having a deep brown colour. To this solution water is to be added in the proportion of one part of the compound to seven parts of water, and if wanted strong the proportion of water may be reduced a little. This substance when sprayed on scale infested plants, covers the insect with a thin film of liquid which on drying forms a coat of varnish and kills the insect by asphyxiating it.

There are also different ready made preparations sold for use against sucking insects which might be purchased in bulk when large quantities are needed. Crude oil emulsion and fish oil rosin soap are examples of these.

It must be borne in mind that very strong doses of these insecticides—especially that of kerosene emulsion—will burn the foliage and make the remedy worse than the disease. As far as possible it will be found advisable to stick to the proportions indicated above, only making the mixtures slightly weaker in the case of soft insects and somewhat stronger when the insects are hard scales.

It is always advisable to apply these insecticides early in the morning before the heat of the sun begins to be felt. In the case of bad and persistent attacks the treatment should not stop with one dose, it should be continued three or four times at intervals of a fortnight.

Before beginning the treatment it is better to remove and destroy all badly infested parts of the plant, or completely dead plants which are not only of any use but will harbour the pests if not attended to properly.

CORRESPONDENCE.

Highfield,

Coonoor, 17th July 1917.

Sir,—As the Deputy Director of Agriculture has seen fit to draw special attention in some two columns of the *Planters' Chronicle* of the 16th June to Messrs. Parry & Co's. advertisement *re*: War Time Fertilizers, we beg to call the attention of your readers to our advertisement *re*: our Fertilizers, and perhaps the Deputy Director of Agriculture will insert a favourable note on our advertisement, although *as a rule* we deprecate such a procedure.

Yours faithfully,
For T. Stanes & Co., Ltd.

ROB. STANES,
Managing Director.

To

SECRETARY,
U. P. A. S. I.,
Bangalore.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 30.]

JULY 28, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

It is with great regret we were informed of the death of Mr. C. Hendry, Superintendent of Boyce Estate, Mundakayam, and Honorary Secretary of the Mundakayam Planters' Association. He was popular and will be much missed. He showed every promise of becoming a more than useful member of the U. P. A.

We publish the Proceedings of the first quarterly meeting of the South Mysore Planters' Association. We note that Messrs. Lake, Hayward and F. M. Hamilton have been elected Delegates to the forthcoming Annual Meeting of the U. P. A. in August, and the subjects that they wish to have added to the Agenda Paper.

We publish the minutes of the third quarterly meeting of the Mundakayam Planters' Association. The resolutions proposed by Mr. Murphy on the subject of the appointment of a Mycologist will be placed on the agenda paper of the U. P. A. Annual Meeting. Mr. J. J. Murphy will represent this Association at the Annual Meeting of the U. P. A. S. I.

We publish our weekly article on Markets, Prices and Statistics.

We are indebted to *Tropical Life* for an article on Queensland as a Coffee Producing Centre.

We publish G. O. No. 1850 of 23rd June, 1917 of the Government of Madras announcing the appointment of Mr. D. T. Chadwick, I. C. S., as the first Indian Trade Commissioner in London. All the planting community will wish him every success for the U. P. A. recollect with appreciation his earnest and sympathetic support during his tenure of office as Director of Agriculture. He has a great chance of making a great name for himself.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	61,581	8	2
Mr. H. Waddington	...	...	30	0	0
Mr. J. Stuart	...	...	150	0	0
Mr. A. C. Morrell	...	...	25	0	0
Total Rs...			61,786	8	2

DISTRICT PLANTERS' ASSOCIATIONS.**South Mysore Planters' Association.**

Proceedings of the 1st Quarterly Meeting held at the Travellers' Bungalow, Saklasapur, on 1st July, 1917.

PRESENT—Messrs. C. Lake, (President,) C. J. Hayward, (Vice-President,) M. J. Woodbridge, F. M. Hamilton, E. V. Hunt, E. W. Rutherford, J. G. H. Crawford, Thiselton Anderson, *Visitors* :—Colonel F. G. Hayward and H. F. de Salis.

The Honorary Secretary being away Mr. Hayward kindly took his place. Before opening the meeting the President said :—

Gentlemen,—We have all recently heard with much sorrow of the death of our old friend Mr. J. A. Harris in April last.

During his time out here he took a very active interest in the affairs of this Association and in planting politics generally and was much esteemed by his many friends in the District.

Before we proceed to business I wish to record on behalf of this Association our deepest sympathy with Mrs. Harris in her bereavement.

Carried—all standing.

The Proceedings of the last Extraordinary General Meeting held at Chickenhully, on 15th May, were passed.

DELEGATES TO THE U. P. A. S. I. MEETING IN AUGUST.—Messrs. Lake, Hayward and F. M. Hamilton were elected, and were instructed to bring up the following matters :—

- I. Land tenure and Title deeds in Mysore.
- II. Hassan-Mangalore Railway.
- IIIa. Form of Contract for Sale of Coffee in India.
- IIIb. Fixing by Government of a minimum rate of Sale for Havre Standard Coffee in India.
- IIIc. Approach the Military *re* a Coffee ration.

DELEGATES TO THE DASSERAH REPRESENTATIVE ASSEMBLY.—Mr. F. M. Hamilton was elected and instructed in regard to the following :—

- I. *Roads.*—The necessity of a bridge in place of the stone causeway on Chenraypatam-Kunigal-Bangalore Road between milestones 67—68.
- II. Thank Government for their support in getting partial removal of Embargo on Coffee.
- III. Financing Planters.

Mr. Woodbridge made a statement with regard to what had been done in winding up the affairs of the Assistant Scientific Officer and a hearty vote of thanks was accorded him for all the trouble he has and is taking in the matter.

CORRESPONDENCE.—This was attended to, the Honorary Secretary was instructed to write to the Secretary, U. P. A. S. I. and enquire as to what had been done *re* the Selection Committee. Also to the Chief and District Engineers with regard to Roads and Bridges.

With a vote of thanks to the chair and to Mr. Hayward for occupying the place of the Honorary Secretary, the meeting terminated.

ST. JOHN HUNT,
Hon. Secretary.

C. LAKE,
President.

Mundakayam Planters' Association.

Minutes of the Third Quarterly General Meeting of the Mundakayam Planters' Association held in the Mundakayam Club, on Saturday, the 14th July, 1917.

PRESENT.—Messrs. J. R. Vincent (Chairman,) R. Harley, S. Linden, N. D. Pollock, T. W. H. Fitchett, A. Hamond, J. J. Murphy, E. Vincent, and Eric Hall. By proxy G. H. Danvers Davy.

The Chairman referred to the loss of one of the members of the Association in Mr. Reid, who died whilst on military service in Mesopotamia, and asked the members to pass a vote of condolence, in silence, and standing, with his relatives. It was resolved that the Chairman write to Mr. Asher and ask him kindly to communicate to Mrs. Reid the sympathetic condolence of the Association.

AGENDA.

- (1) Minutes of last meeting.
- (1a) Minutes of Committee meeting.
- (2) Scientific Officer Scheme.
- (3) Mundakayam Town Improvement Committee.
- (4) Revision of Rules.
- (5) The U. P. A. S. I. Annual Meeting. Election of Delegate and Instructions.
- (6) Correspondence.
- (7) Tea Exports.
- (8) Shastiabdipoorthi of H. H. the Maharajah.
- (9) Post Office.
- (10) Date and Place of next meeting.

(1) The minutes of the last meeting were taken as read.

(1a) The minutes of the Committee meeting held on the 9th of June were read.

(2) The Chairman said that letters with reference to the Scientific Officer scheme, as proposed at the Scientific Officer Committee meeting, were sent, and that replies and results would be announced to the Scientific Officer Committee.

Mr. Harley asked if definite support to the Scheme had been given by the Directors of Companies and Proprietors of Estates at Home. Members were requested to approach their Companies on the matter at an early date.

Mr. Murphy then proposed the following resolutions:—

(1) That Government be asked through the U. P. A. S. I. if they will engage a mycologist for the Travancore, Cochin, and Malabar Districts—salary and other expenditure being met by these Districts.

(2) That the support of other Rubber Associations be asked to the above resolution and that in the event of their not approving of it, Government be asked to engage a mycologist for Mundakayam only, at that District's expense.

These were seconded by Mr. Ashton Hamond and carried unanimously. It was moved from the Chair, and resolved, that the above resolutions be placed on the Agenda of the U. P. A. S. I.

(3) TOWN IMPROVEMENT COMMITTEE.—The Chairman read Mr. S. C. H. Robinson's letter No. 7070/309 of 90, dated June 23rd, 1917 in which he approves of the proposals made in the Draft scheme.

Mr. Pollock proposed and Mr. A. Hamond seconded the following resolution :—That Messrs. J. R. Vincent, J. J. Murphy, and C. Hendry be appointed as a Committee to deal with the whole question.

This was carried unanimously.

(4). REVISION OF RULES.—It was moved from the Chair and resolved that the clerk be given an extra Rs. 5 per mensem with retrospective effect as from the 1st of January, 1917. Agreed.

(5). Mr. J. J. Murphy was unanimously elected as delegate to the Annual General Meeting of the U. P. A. S. I., at Bangalore on the 20th of August, and it was also resolved that the Association Committee be empowered to appoint another delegate should Mr. Murphy be unable to attend.

(6). CORRESPONDENCE.—The letter dated 7th June 1917 from the Chief Secretary to Government referring to the question of the remuneration by private parties to the Head Sircar Vakil for contracts entered into by Government, was read, and the Chairman proposed that "In view of the" "fact of the Head Sircar Vakil being in receipt of a salary from the Govern-" "ment, the Association does not think it right or necessary for private" "parties to pay fees for work such as described, unless the Head Sircar" "Vakil is called in on their behalf by private parties entering into con-" "tracts with Government."

This was seconded by Mr. R. Harley and carried unanimously.

A letter from the Chief Secretary to Government dated July 4th, 1917, regretting that Government is unable to sanction the building of a bridge over the Thalungal river at Kutikul village, was read.

It was resolved, at Mr. Murphy's request, that Government be asked whether, if Mr. Murphy erects the bridge, Government will undertake subsequently, to refund to Mr. Murphy the cost.

Correspondence was laid on the table.

(7). TEA EXPORTS.—This question was left in Mr. Murphy's hands to deal with.

(8). H. H. THE MAHARAJAH'S BIRTHDAY CELEBRATIONS.—Mr. Harley suggested that a Chattram be erected for coolies passing through Mundakayam who at present suffer for lack of accommodation. In this connection Mr. Murphy proposed and Mr. Harley seconded the following resolution :—

"That subscriptions be collected in Mundakayam and Pee made from" "Estate Proprietors for a cooly shelter to be built in Mundakayam in" "commemoration of H. H. The Maharajah's Birthday."—Carried.

(9). POST OFFICE.—After some discussion, during which Mr. Harley explained the circumstances leading up to the Post Office authorities deciding to remove the Post Office from its present site to the Mundakayam village, Mr. Harley proposed, and Mr. E. Vincent seconded, "That the" "Superintendent of Post Offices be written to and asked to keep the Post" "Office at the 35th mile, and to point out that the site at the 33rd mile is" "2 miles from the centre of the Planting District."—Carried.

It was resolved that the Superintendent of Post Offices be requested to meet a member of the Association, to discuss the subject.

(10). DATE AND PLACE OF NEXT MEETING.—It was resolved that the next meeting be held in the Club premises on the first Saturday in October 1917.

A vote of thanks to the Chairman terminated the meeting.

(Signed) J. R. VINCENT,
Chairman.

MARKETS, PRICES, AND STATISTICS.

Coffee.

The following have been the offerings at auction :—

	7—19 June.	Since 1st Jan.	Last Year.
East India	4,877	14,508	24,804
Costa Rica	5,079	60,349	77,742
Other Milds	1,995	30,957	54,064
Brazil	6,657	65,303	49,557
Robusta	Nil	689	776
B. E. A.	Nil	4,398	7,354
Uganda	Nil	10,844	

The demand has been slow, but prices keep about steady.

The *Mysore Chamber of Commerce* in their Weekly Report dated 16th July give the following as local prices ; Peaberry, Rs. 12 to 13, per 26½ lbs. ; Parchment, Rs. 9 to Rs. 9/8 ; Native, Rs. 7/8 to Rs. 8/4. Chikmagalur quotes per 28 lbs. Peaberry, Rs. 11 to Rs. 11/8 ; Native, Rs. 6/4 to Rs. 7/6.

The following prices have been obtained in the London Market for South Indian Coffee :—

	No. 1.	No. 2.	No. 3.	P. B.	T.	Average.
MYSORE.						
Mavinkere ...	111. 89/6	65. 87/-	6. 81/-	22. 93/6	22. 80/6	88/-
Mudabar ...	60. 90/-	29. 88/-	5. 79/6	12. 94/6	9. 81/-	88/9
Rungiahs ...	77. N.	31. N.	...	12. 94/6	15. 81/-	...
Kathlekhan ...	34. N.	13. 88/-	1. 80/-	5. 100/6	4. 83/6	...
Chetenhulli ...	34. N.	26. N.	4. 80/-	9. N.	8. 82/-	...
Maynards ...	47. 91/-	43. 89/-	5. 84/-	13. 99/6	5. 91/6	90/5
Goodytota ...	68. N.	58. N.	18. N.	28. N.	23. N.	...
Balekonda ...	43. N.	21. N.	4. 81/-	5. 94/-	4. 80/-	...
Attikan ...	72. N.	37. N.	2. 72/6	9. N.	13. N.	...
Chickilly ...	62. 92/-	25. 89/-	1. 80/-	4. 101/-	6. 81/6	90/9
Sunksati ...	8. N.	6. 82/6	2. 78/-	1. N.	1. 74/-	...
COORG.						
Cannon Kadu ...	25. N.	16. N.	...	7. 90/6	11. N.	...
Balakadu ...	83. N.	20. 84/-	...	17. 94/-	25. 91/-	...
Horoor ...	44. N.	28. 85/-	...	13. 94/-	25. 81/-	...
Hunchibetta ...	48. N.	28. 82/-	...	...	...	...
Buliarty ...	70. 87/6	...	...	...	...	...
Kardigode ...	18. N.	...	...	...	...	...
Korthikad ...	161. 86/-	23. 83/-	...	...	...	...
Mylatpur ...	38. N.	...	...	...	...	...
Cota Kadco ...	142. N.	80. N.	...	27. N.	29. N.	...
Yemmagoondi ...	92. N.	49. N.	1. 78/-	12. N.	28. 76/-	...
Kibberi Betta ...	45. N.	56. N.	3. 80/6	14. N.	10. 80/-	...
NILGIRIS.						
Kurumba Betta ...	34. 92/6	16. 88/6	...	3. 100/6	7. 85/-	...
Adderley ...	40. 92/6	10. 88/6	2. 80/6	10. 108/6	5. 82/6	...
Maramcojie ...	98. 89/-	70. 84/-	...	13. 92/6	31. 78/6	...
Mootil Peak ...	72. 86/-	18. 83/-	...	6. 92/-	21. 74/6	...
Oland ...	58. N.	47. N.	13. 83/6	...	6. 81/6	...

	Extra.	No. 1.	No. 2.	No. 3.	P. B.	T.	Average.
NILGIRIS.							
Suffolk ...	1. 102/-	45. 94/6	92. 90/6	16. 87/-	9. 98/-	4. 84/6	91/7
Lauriston ...	1. 104/-	42. 96/-	75. 92/-	...	9. 108/-	4. 85/6	...
Kelly ...	2. 103/-	96. 96/6	122. 94/-	...	12. 109/6	5. 86/6	...
Helen ...	2. 98/-	42. 91/-	58. 87/-	...	7. 98/6	3. 80/6	...
Tulloes ...	1. 103/-	43. 96/6	50. 92/6	...	6. 107/6	4. 82/6	...
Sandy Hills ...	...	10. 90/6	24. 87/6	7. 84/6	2. 96/-	1. 88/-	...
Barham ...	1. 95/-	19. 89/-	14. 86/6	4. 82/6	3. 98/-	2. 77/-	87/7
Guynd ...	2. 104/6	79. 94/6	149. 91/-	...	11. 109/6	6. 83/6	...
Hope ...	...	...	23. 91/-	...	...	...	...
Glenavans ...	26. 97/-	31. 93/-	58. 88/6	6. 86/-	4. 101/-	7. 81/6	91/3
" ...	20. 96/-	36. 92/6	53. 88/-	3. 83/6	3. 100/6	7. 81/6	90/7
NELLIAM- PATHIES.							
Wallia ...	...	...	...	...	...	...	...
Warrum ...	1. 94/-	30. 88/6	28. 83/-	6. 78/-	5. 92/6	4. 79/-	85/11

Tea.

Messrs. T. H. Allan & Co., in their Weekly Report dated 20th June say, "last week small supplies met with a very strong demand at firm to dearer prices. No auctions are being held this week pending arrangements for working under the new regulations which divide all teas into certain grades with fixed maximum prices."

The following prices were obtained by South Indian estates at the London market on 11th June:—

	B.O.P.	O.P.	B.P.	Pek.	P.F.	Fgs.
TRAVANCORE.						
Nellikai ...	1/7	...	...	1/5	...	...
Cominory ...	...	...	1/6 $\frac{3}{4}$	1/5 $\frac{3}{4}$	...	...
Pasumallay ...	1/7 $\frac{1}{4}$	...	...	1/5	...	...
Perivurrai ...	...	...	...	...	1/8 $\frac{1}{2}$	...
Yellapatty ...	...	...	...	...	...	1/8 $\frac{1}{2}$
Gundumallay ...	...	...	...	...	...	1/8
Vembenaad ...	1/7 $\frac{1}{2}$	...	1/6 $\frac{1}{2}$	...	...	...
White Hills ...	1/7 $\frac{1}{4}$	...	1/7	...	...	...
NILGIRIS.						
Daverashola ...	1/9 $\frac{3}{4}$	1/6 $\frac{3}{4}$	1/7 $\frac{1}{2}$	...	...	...

Rubber.

The market has been quiet and prices have dropped steadily. On 20th June Crepe was about 2/8 $\frac{1}{2}$, Sheet 2/8 $\frac{1}{2}$.

R. D. A.

COFFEE.**Coffee Planting for Profit.****QUEENSLAND AS A PRODUCING CENTRE.**

We shall, of course, discuss the methods of planting coffee and curing the crop in use in Queensland later on under each of the several headings, so for the present we will confine ourselves to general items of interest concerning that centre. Taking Mr. Howard Newport as our first guide (the Instructor in Tropical Agriculture at the State Nursery near Cairns,) we can report that, in tropical Australia, the cultivation of coffee is possible in the northern half of Queensland, the Northern Territory of South Australia, the northern parts of West Australia, and, of course, in New Guinea of Papua, as well as in the many islands dotted about the South Seas.

Generally speaking, Mr. Newport tell us coffee may be grown throughout the coastal districts of the whole of Queensland north of the Tropic of Capricorn, but, although in a few places south of Brisbane, and even in the northern portion of New South Wales, a little is cultivated, only specially selected situations protected from the frost or cold winds can be planted with coffee with success. No hard-and-fast line can be drawn as the southern limit for the successful cultivation of coffee, but it is more in its natural habitat within a latitude of about 21 degrees south. To the northward, the only limit is that of settlement and communication with civilisation, while the more especially suitable locality lies between Mackay in the south and Cooktown in the north. These coastal lands, for the most part densely wooded, extend on the average for some five and six miles inland from the seaboard. A broken and irregular range of hills extend along this area, varying in distance from the coast-line, and on the west of this the country becomes unsuitable for coffee culture, owing chiefly to irregular or short rainfall.

Owing to this, the area in Queensland specially suitable for coffee may, therefore, be described as being bounded by this range, and while the eastern slopes, at varying elevations from 100 to 1,500 ft. above sea level, are the more generally chosen sites for estates, the more level land between them and the sea is equally suitable climatically, and often has advantages in the way of transport, &c.

Those interested in the question of rainfall, altitude, temperature, &c., may be glad to know that Mr. Newport reports that the average rainfall for the whole of this area may be taken at about 71.50 in. per annum, the heaviest being around the town of Geraldton, which has an average of nearly 150 in., and the lowest around Rockhampton with 42 in. or so. The mean temperature for the whole year was about 60° F., with a minimum in the cold months varying from 42° to bordering on the point of frost, as we have also spoken of in Costa Rica. The summer maximum averages in the north from 95° to 100° F., and 85° F. in the south. The sun is by no means fierce, in spite of fairly high summer temperatures, so that drought is seldom known.

Speaking of the aroma and flavour in Porto Rican coffee, a writer in the Tea and Coffee Trade Journal points out that one difficulty in connection with coffee growing in the island has been the soil, which gave too much of the coffee, particularly the lower grades, a peculiar wild character. This, however, is apparently being overcome to some extent, as the estates are being cultivated with more care and the soil properly fertilised. Doing so, be it noted, is claimed to have brought the superior grades of this growth into the front ranks of fine coffees.

Talking of aroma, those who subscribed to *Simmons' Spice Mill* may remember that Dr. Floyd Robinson, when addressing the members of the sixth annual convention of the National Coffee Roasters' Association,

claimed that it is pretty generally conceded that the peculiar aroma of coffee is due largely to the presence of a product, *caffeol*, which seems to be developed during the roasting. In just what way it is developed is not known, and whether it is a definite constant product itself or a combination of products, aromatic but of varying degrees is not clearly proven. What Dr. Robinson claims here for coffee is, we feel sure, the same in cacao, and we hold that the slower drying in the sun gives a larger percentage of this product, and hence a finer flavour and aroma to the beans, coffee or cacao, when skilfully and accurately roasted and, of course, to the beverage when properly "brewed."

Returning to Queensland, its soil, and coffee, Mr. Newport gives valuable data about the cost of production and the returns and profits obtainable. The returns from a ten-acre estate from the fifth year (inclusive) may, therefore, we are told, be taken as worth about £350 cleaned and hulled, of which from £150 to £200 should be net profit. These figures, it should be remembered, were published in July 1910, and, therefore, probably ran back in 1909 as well. Much has happened since then, so estimates based on these Queensland figures must be adjusted accordingly and brought up to date. Going back to Mr. Newport's estimates the returns on which he appears to have based his profits (assuming that the soil is cultivated) run around a crop of about two tons from the ten acres in the third year, three and a half tons in the fourth, and after that at the rate of ten cwt. per acre (five tons for the ten acres) and so on. Larger outputs are possible and even probable, but wisely the estimates are put on the conservative side.

Summing up, the estimate concludes that with £700 to £875 a return of 15 to 20 per cent. per annum should be obtained. The above, remembering what has already been said about the bulk of the estates in Porto Rico, Costa Rica, &c., being in the hands of small proprietors with two to twenty acres under coffee should cause ex-soldiers and others to note the encouragement given by Mr. Newport to small capitalists, and especially when he concludes by saying that a working man accustomed to ordinary farm labour could open up an estate in Queensland at much less cost, for by working himself, which he could do, he would have many of the items usually included in estate estimates. Those with a small capital, but with a healthy family, can therefore keep an eye on Queensland as a likely coffee country, for there is much that children can and do on both coffee and cotton estates in Queensland and elsewhere.

Those with a larger capital might prefer Nyasaland, but here the climate is not so suitable for permanent settlement by adult Europeans, and especially by the children; and, furthermore, the latest report to hand warns us that no planter should purchase an estate unless he is possessed of such means as to leave him a working capital of not less than £1,500 to go on with (after purchasing the land, if not the house also).

Compared to the Queensland estimate for coffee and Mr. McCall's figure for Nyasaland, that gentleman tells us that is considered by competent authorities that the Canadian farmer should possess, as a minimum, £200 to £250 over and above the price of his land against £800 to £1,000 in South Africa, and £1,500 in Nyasaland. The Nyasa pamphlet referred to does not point to coffee being extensively planted in the Protectorate, as full particulars are given of cotton and tobacco, whilst coffee is only mentioned.

The total acreage under European cultivation in 1915-16 throughout the Protectorate was returned as being 51,208 acres, of which 29,578 were under cotton, 7,484 under tobacco, 4,141 under tea, and the balance, about 10,000 acres, under such crops as maize, millet, rubber, sisal and coffee,

&c.—*Tropical Life.*

**GOVERNMENT OF MADRAS,
REVENUE DEPARTMENT.**

G. O. No. 1850, 23RD JUNE, 1917.

Communicating to the Board of Revenue copy of a Press communique announcing the appointment of Mr. D. T. Chadwick, I. C. S., as the first Indian Trade Commissioner in London.

Press Communique of the Government of India, Department of Commerce and Industry, dated Simla, the 14th June, 1917.

In 1915 a temporary appointment of Indian Trade Commissioner in London was made as an experimental measure, with the object of assisting in finding outlets for Indian exports, the normal markets for which were cut off owing to the war. The appointment was held for a short time by Mr. M. M. S. Gubbay, C. I. E., I. C. S., but lapsed on his return to India. The Government of India have had under consideration the desirability of establishing the post on a permanent basis. They recognise that it will in future be a matter of high importance that Indian trade should be directly represented in London and they accordingly laid before the Secretary of State proposals for the permanent appointment of an Indian Trade Commissioner in London. These proposals have been accepted and are now announced for general information.

2. The principal function of the Trade Commissioner will be the assistance of Indian export trade. He will advise the commercial public in their search for fresh markets for Indian products and establishing new commercial connections within the Empire and will help Indian Industrialists in their enquiries regarding machinery and processes of manufacture. He will work in close co-operation with the Commercial Intelligence Branch of the Board of Trade, and with the Director-General of Commercial Intelligence in India, and will be a source of ready information to the public on Indian Commercial and Industrial matters. His office will be located in the city so that he may be in direct and immediate touch with merchants and others interested in Indian products. It has been decided to associate with the Trade Commissioner an Indian assistant with commercial experience.

3. Mr. D. T. Chadwick, I. C. S., who was recently on deputation to Russia, France and Italy, with a view to promoting commercial relations between India and those countries, has been appointed the first Indian Trade Commissioner in London. Further information as to the date on which Mr. Chadwick will take up his appointment will be announced later. The selection of an Indian to act as his assistant is at present under the consideration of the Government of India.

CORRESPONDENCE.

Shevaroy Planters' Association.

Nagalur P. O.

22/7/17.

THE SECRETARY, U. P. A. S. I.,

Bangalore.

Darkhast Rules.

Dear Sir,—At a special General Meeting of the Association held at Yercaud on the 20th and with reference to the above subject it was resolved :—

"That this Association is of opinion that the modified form of Darkhast Rules proposed will meet the wishes of all concerned—except that taking into consideration the quality of the lands on these Hills the rate of assessment (*i. e.*) Rs. 5. per acre is out of all proportions and quite prohibitive, therefore instructs the Honorary Secretary to address the Secretary, U. P. A. S. I. to kindly request Government to pray them to alter in Rule (*e.*) the words 'Local officers shall have power to assign waste lands to applicants at a fixed rate of Rs. 5 per acre' to 'Local officers shall have power to assign waste lands to applicants at a fixed rate of from 4 annas to Rs. 5 per acre.' "

On behalf of this Association I shall feel very grateful if the U. P. A. S. I. will kindly let Government know our wishes in the above matter and that you will please have the resolution published in the *Planters' Chronicle*.

I am, dear Sir,

Yours faithfully,

CHAS. DICKINS,

Hon. Secretary, S. P. A.

FOR SALE.

Mutsaugor and Eachurvully Estates.

NEAR SAKLASPUR, HASSAN DISTRICT, MYSORE.

These Estates, in which the late Mr. Graham Anderson, C.I.E., held a half share and which now belong to the senior partner, Mr. R. A. Anderson, and his wife, were first opened under "Old Manjarabad" Coffee and subsequently replanted throughout with the "Coorg" variety. To the old coffee new clearings have since been added and the whole of the Estates, with the exception of a few recent purchases of jungle land at Mutsaugor, are under the permanent assessment and the title deeds can be inspected.

The prices obtained for this Coffee on the London Market where it has been sold under the Barguai Mark are always among the best, as any reference to price lists will show.

Both Estates have good tanks which overflow all the year round so that there is ample water for pulping.

All other particulars may be had from—

W. H. JOHNSON,

33, Residency Road, Bangalore.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 31.] AUGUST 4, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We publish the Proceedings of the Quarterly General Meeting of the Bababudin Planters' Association. The para, dealing with the prohibition of coffee, throws the onus on Government for financial assistance. This we believe will be forthcoming in some way but planters too must help. Lately a form to be filled in has been circulated by the Chairman, and on these being properly filled in, and rendered to Government, with as full information as possible, will depend the amount of assistance to be given. A great deal depends on the planter himself.

We take from the *India Rubber Journal* an article on Research in the Dutch East Indies.

Our correspondence columns are unusually full and interesting from various points of view. The Deputy Director of Agriculture has addressed to the Chairman (who has authorised its publication) a letter dealing with the appointment of a Mycologist. "Putharl" places a suggestion before Mr. Anstead, who, being at present on tour, will no doubt deal with it on his return. The letter dealing with Tea Shipments is occupying the attention of South Indian Producers and Shippers at Home. The letters of Sir George Makgill and Mr. Brooke Mockett will be read with great interest by all coffee planters. The value of affiliating with the British Empire Producers' Organisation will be immediately recognised, and will receive attention at the Annual Meeting.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged ...	61,786	8	2
Messrs. Barber & Pascoe ...	75	0	0
Mr. J. S. Nicolls ...	320	0	0
Billiard Room of the Ootacamund Club ...	200	0	0
Mr. Campbell Hunt ...	30	0	0
Mr. Wm. Hendry ...	30	0	0
Mr. Dudley Cooper ...	35	0	0
Mr. J. Wadderspoon ...	50	0	0
Mr. W. Lyndon ...	10	0	0

Total Rs... 62,536 8 2

DISTRICT PLANTERS' ASSOCIATIONS.**Bababudan Planters' Association.**

Proceedings of a Quarterly General Meeting held at Santaveri, on Sunday, July 15th, 1917.

PRESENT.—Messrs. A. C. W. Denne, F. Hugonin (Vice-President), H. Kerr J. Ross Porter, and S. H. Dennis (Honorary Secretary).

The minutes of the last meeting were taken as read and confirmed.

(1) **SCIENTIFIC DEPARTMENT.**—The matter of engaging a Mycologist was discussed, and the meeting were of opinion that it should be shelved until the termination of the War.

(2) **SANTAVERI DISPENSARY.**—The Special Revenue Officer's Letter dated 13—2—17 was read, the Honorary Secretary was requested to write and thank the Mysore Government, for the Santaveri Dispensary, and to point out, that we had been asked to put up temporary buildings, not permanent buildings in accordance with standard plans, as stated in the above mentioned letter, further he was asked to quote correspondence between Mr. Denne who is putting up the buildings and the Deputy Commissioner, in which the latter in his letter No. 585 dated 2nd April, 1917, requests that substantial buildings may be erected.

(3) **ROADS.**—The Honorary Secretary was desired to send a reminder to the Executive Engineer, Kadur District, that no reply had been received to his letter in *re* the state of the Birur-Lingudhully road, he was also requested to enquire, as to the progress of the proposed Kulhuttupur-Saave road, and to again approach the District Board for an allowance towards the upkeep of the Kulhuttupur-Kurkenmutty road, which is 7 miles in length, and is more a Public than a private road, being greatly used by Ryots from long distances for the transport of firewood, timber and bamboos from which the Mysore Government derive a revenue, but pay nothing towards the upkeep of the road.

(4) **B. P. A. ANNUAL SUBSCRIPTION.**—It was decided that the annual subscription to the Association be at the rate of 3 annas per cultivated acre in future.

(5) **UNLOADING CHARGES AT BIRUR.**—The Honorary Secretary on the complaint of a member, having written the General Traffic Manager, M. & S. M. Ry. that an unusual charge for unloading waggons was being levied at Birur, without the Consignees having received notice of the arrival of the goods, his reply was read and noted.

(6) **PROHIBITION OF IMPORT OF COFFEE INTO THE UNITED KINGDOM.**—The correspondence under this heading was read, and the meeting thought, that as Government has prohibited the Shipping of Coffee and Exchange, we naturally look to Government for financial assistance in the immediate future.

A vote of thanks was proposed and carried to Mr. W. St. C. Johnson for having represented the Association at the meeting in Madras.

(7) **INDIAN DEFENCE FORCE.**—Letters received on this subject were read and noted.

(8) **RAILWAYS.**—The Honorary Secretary was requested to ask the Government of Mysore, as to what purpose it was proposed to apply the 6 pie per acre railway cess, of which the Kadur District has been mulcted this year.

(9) **ELECTION OF DELEGATE TO THE U.P.A.S.I. ANNUAL MEETING.**—Mr. Dennis was elected to represent the Association at the Annual Meeting, and in the event of his being unable to attend, Mr. Kerr consented to do so.

The meeting closed with a vote of thanks to the Chair.

(Signed) F. HUGONIN, *Chairman.*

(") S. H. DENNIS, *Honorary Secretary.*

RUBBER.**Research in the Dutch East Indies.**

We have on many occasions given publicity to the results of research being carried out in Java and Sumatra. We frankly believe that the majority of directors and shareholders of British plantation companies have no knowledge of the organisation which exists, especially in Java; for research and of the value of the work done. Most Britishers are, of course, fully aware of the research organisations which exist in Ceylon, South India and Malay, and also of the efforts which private companies are making in the same direction. We have received a number of letters from Java which indicate that keen attention is being paid to the remarks of the chairmen of British companies operating in that colony. We are asked to draw the attention of our readers to the remarks which have been made by certain gentlemen at recent annual meetings held in London. One of our correspondents goes so far as to suggest that in his opinion many speeches have been made by men who have only a meagre knowledge of what is being done in Java. Suggestions have been made on this side that research stations should be started in Java by British plantation companies; this has not been favourably reviewed by those resident in that colony. In our opinion it is high time that there was closer co-operation between the British and Dutch research stations in the Middle East, and as most of our readers know, we are entirely out of sympathy with those who believe that the results of research should be confided only to those who have been in a position to support the costs of the various research stations. There is, as a result of the past policy, considerable over-lapping and enormous waste of labour, not merely on the part of scientific officers, but on the part of planters, who frequently act upon the advice of their nearest scientific officer.

We are told that many opponents in this country owning estates in Java are not members of the Central Rubber Station in that colony. We certainly think it is high time everybody operating in Java contributed to the costs of these stations, and would suggest that those responsible for the organisation in Java send a formal application to the companies in this country who are not yet members.

On the other hand, we know that in this country there are many parties interested in the Dutch East Indies who have not in the past considered it necessary to give their support to the Rubber Growers' Association, London. There is, in our opinion, no longer any valid excuse why any company registered in this country and operating in Java should not support the Rubber Growers' Association in London, especially since that body has recently formed a very strong Netherlands Indies Committee to deal with problems arising in the Dutch colonies. Every effort should be made not only to secure new members among British companies to the research stations in Java, but also among directors of British companies to join what is after all the strongest Association in London engaged purely in an effort to protect and improve the plantation industry. We are entirely opposed to those who have recently started an agitation for an additional association, not merely for the Dutch East Indies, but for the plantation rubber industry in general, and are still more out of sympathy with the grievances which these worthy gentlemen have so freely ventilated.—*The India-Rubber Journal.*

REPAIRING GERMAN RUIN IN FRANCE.

Thousands of Maimed Trees Restored.

Mr. Henry Wood, the Special Correspondent of the United Press of America with the French Armies, describes how the French have rescued many of the trees mutilated by the Germans in their retreat. He says:—

"There were thousands of trees that the close pursuit of the French prevented the Germans from completely cutting down; instead the tree-killers cut off a circle of bark around the trunk, which with a few days' exposure to the sun would be sufficient to kill peach, plum, apple, apricot, and cherry trees that had been half a century attaining their productiveness. These trees presented the easiest problem. The wounds were merely bound up like the wounds of a soldier. Thousands of Army surgeons and Red Cross ambulance drivers and stretcher-bearers assisted in this work. The circle where the bark had been cut away was first covered with a special grafting cement and the entire wound then carefully bandaged up—often with bandages that had been prepared for human limbs. So great was the number of trees that had to be dressed in this way that the entire available supply of grafting preparation was quickly exhausted. Tar was then used as a substitute and finally even a loamy clay. Substitutes for surgical bandages also had to be found and in the end it was discovered that moss twisted and tied about the dressed wound was as effective as anything else.

A much more serious problem presented itself where the trees had been entirely cut or sawn down. But here French genius also solved the problem. The stumps, protruding usually two or three feet from the ground, were first trimmed off so as to conserve the sap and prevent the death of the roots, and then treated with the grafting paste and carefully bandaged till the cut-down tree lying at the side budded from the sap and life that remained in it. Branches that showed great numbers of buds and other signs of exceptional vitality were then cut off and finally grafted into the carefully prepared stumps. To-day these grafts are in full leaf and blossom. The roots appear to have been entirely saved by this process and years have been saved in restoring the cut-down orchards of France.

On every hand are also to be seen carefully cultivated and sown fields each bearing its little painted sign "Terrain cultivé par l'Armée."

The few horses that are being used for the fields are those whose guns and ammunition caissons wait unharnessed at the side of the field to be taken up again as soon as a little ploughing or harrowing is done. Likewise, except for an occasional old man or old woman working away on small gardens, all of the heavy work of the fields is being done by soldiers. As the Troops pass, either going to or from the front, they stop and dedicate the day to the cultivation of the redeemed fields. The next day they pass on and other troops take up the work.—*The Times*.

CORRESPONDENCE.

No. 637/1917.

Office of the Deputy Director of Agriculture,
Planting Districts,
Bangalore, 29th June, 1917.

From

RUDOLPH D. ANSTEAD, ESQ., M.A.,
Deputy Director of Agriculture,
Planting Districts,
Bangalore.

To

J. S. NICOLLS, ESQ.,
Chairman,
United Planters' Association of Southern India,
Devarshola P. O., Nilgiris.

Sir,

Rubber literature has recently contained many warnings about the damage caused, and likely to be caused in the future, by fungoid diseases.

Thus Prof. Farmer points out that there are special dangers incident to any tropical industry carried out under perpetually moist conditions. Fungi require for their best development moisture, heat, and decaying matter, and a typical Rubber plantation provides all these requirements and gives the conditions necessary for the spread of epidemic diseases. The fungi are assured of a permanent food supply over immense areas and the wide stretches of Hevea permanently occupying the land gives every opportunity for parasitic fungi to develop, and as the conditions necessary for the spread of these diseases are permanent, in all probability diseases, especially those attacking the bark, will increase with the age of the plantations, and in future years there will be in consequence a tendency to a decrease in crop from every affected area.

Rubber Journals have also of late been very insistent upon the subject. Thus the India Rubber Journal (LIII, 12 of 24th March, 1917 p. 430) says that shareholders of companies should be more fully informed on the subject of diseases than has been customary in past years. "It is as well that all the interests of our industry should bear this factor in mind. While we believe that the moist hot atmosphere prevailing in rubber areas will make it easy for parasitic fungi to spread, we are convinced that, *if proper precautions are taken*, the damage done will be small. The Rubber plantation industry has not yet realised the danger ahead, and *it should be possible to secure considerable sums of money from everyone interested in plantation rubber to protect this magnificent national asset.*"

Again in an article on 'Bark Diseases and Crops' this Journal (LIII. 9. of 3rd March, 1917, p. 332) says—"Diseases, quite apart from labour troubles, will adversely affect crops in future years. The longer Hevea trees remain on the same uninterrupted vast areas under conditions of Heat and moisture, the greater will become the danger from diseases. Bark rot is spreading and becoming more serious every day." After considering the possible necessity for a Pest Act the article concludes as

follows:—"But what we want to see is the machinery whereby approved methods of prevention can, with or without compulsion, be carried out. We are not influenced by the current fashion to establish separate departments to deal with every difficulty, but we certainly would like the question of diseases and pests on rubber plantations to be dealt with by a scheme sufficiently bold and comprehensive to guarantee success. We view the whole subject more seriously than the majority of people interested in the plantation industry, because we have studied closely the dangers which beset cultivators. We consider that no expense should be spared to protect and foster this magnificent national asset. *We should particularly like to be assured by the Agricultural Department in South India, Ceylon, Malaya, Java, Sumatra, and Borneo, that they have plenty of trained officers who spend the whole of their time inspecting estates suffering from diseases and pests and actually seeing that the approved remedial measures are carried out.* The Agricultural Departments are entrusted with this important work, and their responsibility is great. Rubber growers are prepared to find all the hard cash necessary to protect their estates from disaster, and under these circumstances it is easy to see on whose shoulders the blame would be placed for any serious loss arising from the ravages of the numerous diseases and pests now known to affect the roots, bark, branches, and fruits of Hevea."

I have quoted this article at some length because our experience in South India undoubtedly shows that what is said about the increasing damage done by fungoid diseases and the future danger is true. Pink Disease is increasing, secondary leaf-fall and bark rot are also increasing, while Canker is virulent in Mundakayam. During my recent tour of the Rubber districts with Mr. McRae, the Government Mycologist, I was much impressed by his statement made again and again both to me in private conversation and to planters at meetings that "Rubber Estates were ideal places for all fungi and a Mycologist's paradise."

The Scientific Department of the U. P. A. S. I. with its present equipment and staff, or rather lack of these, is quite incapable of dealing with the matter. We are promised in the near future the addition of a Mycologist to the staff, but even then there will be more work than he can do and he will not be able to devote *the whole of his time* to Rubber diseases. Are the Rubber planters of South India fully alive to the danger and are they prepared as stated in the article quoted above to "find all the hard cash necessary to protect their estates from disaster."?

The Mundakayam Rubber Planters' Association is alive to the danger of these diseases and at a Meeting held on 14—15th April last, which I had the pleasure of attending, the subject was discussed in detail and a proposal was put forward that an endeavour should be made to appoint a Mycologist to work at Rubber diseases only either in Mundakayam or in South India. Since that date the scheme has been more fully discussed with the valuable aid of the advice of the Government Mycologist and I have been requested to write to you as Chairman of the U. P. A. S. I. to ask you for your views on the subject and whether you think such a scheme would meet with the approval and support of all the Rubber growers of South India and whether you think a suitable man could be obtained during the war.

Personally I feel very strongly that such a scheme should not apply to Mundakayam alone and the Mundakayam Planters' Association agree with me in this. My reasons for this are first of all that the cost would be prohibitive if borne by a small community and an area of only 12,681 acres out of a total of some 50,000 acres. Secondly the problems to be studied

affect all the Rubber areas. If they are worked at only in Mundakayam (or Travancore) the places outside are bound to benefit, and that being so they should bear their share of the cost. If it is attempted to shut them out it means the publication of confidential reports which are unsatisfactory, because they cannot be kept really confidential; witness the R. G. A. so-called confidential reports, practically any one can get them and one often sees them lying about a Bungalow for anyone to pick up and read.

Further I maintain that the principle of confidential reports is faulty. The work should be done for the Rubber community at large and if a discovery is made it should be published for the benefit of every one. The Agricultural Department of Ceylon and Malay publish all their work, and we should reciprocate. The Mycologist himself must be considered. If he does good work and makes discoveries he naturally wishes to benefit by these and to be able to publish his work in Journals &c., and get himself known. If his reports are to be confidential and only circulated among a limited number of planters in one small corner of the world he will never be heard of and his prospects of promotion, and possible honours in the Scientific World such as a doctor's degree conferred by this University for instance, are small.

To study the diseases of Rubber properly the Mycologist would undoubtedly wish to see them under all possible conditions and his work would be hampered if he confined himself to Mundakayam alone, or even to Travancore alone and his experience would be limited.

These facts must be taken into consideration and on this I base my opinion that any scheme considered should be for the whole of the Rubber growing area of S. India.

There should be no difficulty in fitting in such an appointment with that of the Mycologist for Planting Districts when he is appointed. The Rubber Mycologist would simply be another member of the staff with a special job and the Mycologist for Planting Districts will have plenty to do without Rubber work. The Rubber Mycologist should be placed directly under the control of the U. P. A. Scientific Department which is now a branch of the Madras Agricultural Department and be a member of it, with the Director of Agriculture as his controlling officer for discipline. I mention this particularly at the outset as I should oppose most strongly any attempt at a dual control after my experience of this method in Mysore with the Assistant Scientific Officer. Any scheme of dual control are foredoomed to failure. With regard to the Scheme itself the following is suggested in quite broad outline. Details must be filled in later if it is accepted:—

The Mycologist is to be a European, if possible with some former experience, recruited from the best source available. He will need a bungalow and Mr. Vincent is prepared to lease for the purpose. His headquarters it is suggested should be Mundakayam as being central, in a district particularly affected by diseases, and in an ideal climate for studying these (this on the authority of Mr. McRae). He will also need a laboratory, two Assistants, who may well be Indians recruited from the Agricultural College, Coimbatore. These are necessary because when he is away on tour some one must be at the laboratory to keep cultures going, &c., and do routine work. A second is necessary as a field man to make observations which would otherwise unnecessarily tie him down to one spot and waste his time. It will be necessary to provide a big travelling allowance and it will probably be advisable to provide him with a car.

On this basis the following rough estimates are put forward it being understood that they are quite tentative :—

SALARIES—	Rs.		Rs.	Rs.
Mycologist	500-1,000	...	6,000	12,000
2 Assistants	150-200	...	1,800	2,400
Writer	30-50	...	360	600
3 Peons	10	...	360	400
LABORATORY—				
Building	...	...	10,000	—
Equipment	...	...	3,000	—
Upkeep	...	...	1,000	1,500
Bungalow Rent Rs. 40	...	...	480	500
Assistant's quarters	...	...	5,000	—
Travelling Allowances	...	...	2,000	2,000
Office Contingencies, Stationery, postage, etc.	...	...	1,000	2,000
Car	...	...	5,000	—
Total...			36,000	21,400

As the scheme is proposed for the benefit of the whole of Rubber Growers of S. India it is thought that the R. G. A. might legitimately be asked for a contribution towards it, especially as at present we get no actual monetary benefit for our subscriptions to that body. Also it is possible that the Durbars of Travancore and Cochin might be willing to contribute.

Leaving these possible sources of revenue out of account however, there are estimated to be on the latest returns 44,471 acres of Rubber in S. India in the hands of European Companies and owners. The cost of the scheme will therefore be less than Re. 1 per acre all round which is small enough when the importance of the matter is taken into consideration.

As stated above I have been specially asked by Mr. J. R. Vincent the Chairman of the Mundakayam Rubber Planters' Association to lay the scheme before you and to ascertain your views, and I have endeavoured to do so as fully as possible. Of course you will understand that the scheme is necessarily nebulous at present and that there are many details to be considered and filled in.

In conclusion I need hardly say that any such scheme has my whole hearted approval. Ever since I have been here I have been asking for a staff of some kind to render my Department more efficient and capable of dealing with the many problems with which I am faced, but at the end of eight years I am still single-handed. An addition like this herein proposed would be very welcome and enable my Department to justify its existence to some small extent.

I have the honour to be,

Sir,

Your most obedient servant,

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

Shevaroy Hills,
26—7—17.

THE EDITOR,
The Planters' Chronicle,
Bangalore.

Dear Sir,—May I suggest that in view of the threatened attack of leaf disease predicted by Mr. Anstead during his tour of these Hills in January that he be asked to instruct one of his clerks to compile a Bulletin consisting of all the prominents on the subject of Leaf Disease and its treatment which have appeared in the *Planters' Chronicle* and other Government Bulletins, *in one cover* for easy and quick reference.

I am encouraged to make this request by your reproduction of "Home Made Remedies against some Common Plant Pests," and also by the fact that I know Mr. Anstead keeps a "Card Index" of all his Bulletins and writings,—and I think a pamphlet such as I suggest would command a ready sale, and be of the utmost benefit to planters who wish to start a campaign against Leaf Disease, but who get "muddled up" whilst hunting for facts through various publications.

Yours faithfully,
"PUTHARL."

1—4, Great Tower Street,
London, E. C.
28th June, 1917.

FLETCHER NORTON, ESQ.,
Secretary,

United Planters' Association of Southern India,
25, South Parade, Bangalore.

Dear Sir,—In consequence of a communication from the Agents of the "Clan" Line, intimating the withdrawal of facilities for the shipment of tea from Southern Indian ports, a meeting was called, representative of Southern Indian producers and shippers and held at the above address on the 25th instant to consider the position, the following firms being represented:—

T. H. Allan & Co.
Alston, Arbuthnot & Co.
Aspinwall & Co., Ltd.
P. R. Buchanan & Co.
Darragh, Smail & Co., Ltd.
James Finlay & Co.
Harrisons & Crosfield, Ltd.
Peirce, Leslie & Co., Ltd.

Rowe, White & Co., Ltd.
South Travancore Tea Co.
Stanmore (Anamallay) Estates, Ltd.
Teekoy Estates, Ltd.
Travancore Tea Estates, Co., Ltd.
J. H. Vavasour & Co. Ltd.
Rubber Estate Agency, Ltd.

Mr. George Croll was elected to the chair, and after a full discussion, it was decided to address a letter to the Shipping Controller, Ministry of Shipping, placing the facts of the case before him and asking for information as to how he proposed to deal with the matter.

A committee consisting of Mr. George Croll (Chairman), Mr. H. K. Rutherford, Mr. A. Bryans and Mr. W. S. Cox, was appointed to draw up this letter and also to frame and despatch a cable to you, informing you of steps taken in London and requesting you, on behalf of your Association, to strongly represent to the Government of Madras the serious effects the withdrawal of Shipping facilities would entail. In the same cable we requested you to inform us whether any further action on this side could be taken

to further the desired end. We refer you to a copy of the letter and to the confirmation of the cable referred to, and remain,

Yours faithfully,

GEORGE CROLL,
Chairman of Meeting.

June 20th, 1917.

TO THE SHIPPING CONTROLLER,
THE MINISTRY OF SHIPPING,
ST. JAMES, S. W. I.

Sir,—I have the honour to inform you that a Meeting, representative of all the Tea Producers and Shippers of South India, was held yesterday to consider their position in regard to the advice received from the Steamship Companies that the existing facilities for shipping their produce had been withdrawn.

1. It may be within your knowledge that under the Government restriction on imports of Tea into this country a definite allotment was made by the Indian Tea Association to the South Indian Companies on the basis of their shipments from the various South Indian Ports—Calicut, Cochin and Tuticorin. If facilities for shipment from these Ports is withdrawn, it must result in very serious hardship to the large interests involved, and in connection with this I desire to place the following facts before you.

2. South India has, approximately, 70,000 acres under Tea cultivation. These produce an annual crop of, approximately, thirty million lbs., equal to 10% of the whole of the Indian output. The Capital involved is about three and a half million sterling, and the industry gives employment to approximately 100,000 natives.

3. The Meeting had no information as to how it is proposed to deal with the produce, but if the intention is to centralize shipments in Calcutta and Bombay, I would bring to your notice the following facts:—

To send Tea from South India to Calcutta or Bombay is not practicable, unless special shipping facilities are provided, as rolling stock has been much curtailed and the traffic is already very congested; and in addition to this the railway rates are prohibitive.

In addition to Tea, South India exports considerable quantities of Rubber, Coconut Oil, Copra and Fibres, and as far as our information goes, these (in so far as they are considered articles of National importance) will be provided with shipping facilities, and if this information is correct it is hoped that as Steamers will be visiting the Ports, space will be reserved for the proportion of the Tea Crop allocated under the existing Government restriction, to which I have referred.

I am asked to say that South Indian Tea Producers fully recognize the difficulties which have to be contended with at the present time, but they feel that it is inequitable that their produce should be deprived of their share of the limited facilities which are being provided for the shipment of Tea from Northern India and Ceylon, and they view with the utmost seriousness the disastrous effect this would have not only on the Capital invested but on the large Native Force employed, and thus prejudicially affecting the interests of the large Native State of Travancore, which surely has a right to equal treatment with the rest of India.

5. In conclusion, I would esteem it a favour if you would advise me as to how the matter stands and if you desire any further information, I shall be glad to supply you with it,

Yours faithfully,

Copy of Cable despatched to:—

PLANTING BANGALORE.

Fully representative meeting South Indian producers shippers held yesterday decided approach shipping controller view to his continuing grant facilities shipment tea from South Indian Ports and to ask you to strongly represent to Governor of Madras serious effects withdrawal of same would entail can we do anything further on this side.

CROLL care CROSFIELD.

The British Empire Producers' Organisation.
Kingsway House,
Kingsway,
London, W. C. 2,
June 29th, 1917.

Dear Sir,—I have received this morning from the India Office the news, which I believe has already been communicated to you by Cable by Mr. Mockett, that the Government have at last conceded everything that was asked and have authorised the import of 6,260 tons of East India Coffee, have removed the embargo placed upon shipments arriving here and have cancelled the bonds hitherto required. I gather that nearly two-thirds of this quantity has already been shipped, and I trust that you will be able to make satisfactory arrangements for the shipment of the balance of the crop.

The negotiations have been long and difficult, and I feel that everyone concerned owes a very great debt of gratitude to certain members of the Cabinet, who, at the request of this Organisation, have interested themselves personally in the matter and used every possible effort to obtain a decision favourable to British industry. The India office have exerted themselves to the utmost.

I trust that your Association is satisfied with the efforts which this Organisation has made on its behalf and that the result has proved satisfactory to your members.

I am,
Yours faithfully,
G. MAKGILL,
General Secretary.

The Secretary,
United Planters' Association of Southern India.
25, South Parade, Bangalore,

23, Gledhow Gardens,
London, S. W., 5th July, 1917.

FLETCHER NORTON, ESQ.,
Secretary,

The United Planters' Association of Southern India.

Dear Mr. Fletcher Norton,—I have to thank you for your letter of 1st June in which you gave a copy of the telegram forwarded to you by the Mysore Chamber of Commerce stating that Government had agreed to allow import of 6,210 tons, the estimated half of the coffee crop.

At the time you wrote nothing was known here officially of this, but as stated in my last letter, all Indian Coffee in excess of 2,050 tons was put under embargo as it arrived and a bond to double its value was levied on it.

The whole matter has now however been finally settled by the India Office having obtained the sanction of the Board of Trade to the import of 6,260 tons of the present crop, inclusive of quantities already imported, and on the 23th June I cabled to you as follows.

"Government have just officially sanctioned import of six thousand two hundred and sixty tons East Indian Coffee to United Kingdom."

Mr. Kershaw, C. I. E. of the India Office, who has worked very hard for us, informed me of this settlement, on the telephone on 28th June, but it was not publicly announced until two days afterwards. All embargo on Indian Coffee was at once removed, and all Bonds on it were cancelled.

Thus as far as import is concerned there will be no more trouble but you may have difficulty in obtaining tonnage for the balance of the crop as the Shipping Controller is not disposed to grant any facilities. Mr. Kershaw has however promised to try to induce this Controller to allot to coffee any space which can be spared by Government, or for which Government cargo may not at the moment be ready for shipment.

I have sent a *Morning Post* with an account of the settlement of the coffee question. Please pass it on to the Chairman with my compliments.

The successful issue of this matter is mainly owing to the private influence brought to bear on our behalf by the British Empire Producers' Organization. In spite of all the efforts of Sir J. D. Rees no tangible concession could be obtained from the various "Controllers" or the Board of Trade, or see copy of B. of T. letter of 5th May to Sir J. D. Rees. There was a complete deadlock, until the above Organization placed the matter privately before an important member of the Cabinet and enlisted his sympathy and aid, pointing out that while the import of Indian coffee was forbidden, immense quantities of foreign grown coffee were being freely admitted. The British Empire Producers' Organization also invoked the assistance of the *Morning Post*. Influence was brought to bear by the Minister in question upon the India Office which thereafter acted vigorously on our behalf and insisted on the settlement now arrived at being made. To Mr. Kershaw of the India Office, with whom I have continually been in communication, our thanks are especially due, and I feel convinced that his aid can be confidently relied on in any future trouble we may encounter.

With regard to my appointment as Representative on the British Empire Producers' Organization of the United Planters' Association, I am perfectly willing to continue to act as such should the Chairman and Committee so desire, at least until the termination of the War, or until someone can be found who it may be desired to appoint in my place. I have gained considerable experience in dealing with the various officials here in effecting the settlement of the coffee import matter. My impression is that any business placed before the India Office will always ensure their sympathy and support if properly represented.

I have now received your cablegram of 28th June "Request Rees represent immediately Ministry Shipping that permission be given to ship full permit allowed by Government under restricted allotments. All shipments of Tea except on Government account is now stopped."

On receipt of this I at once placed myself in communication with Sir J. D. Rees and with the Committee of the South Indian Tea Trade, and prompt action has been arranged.

Yours faithfully,

BROOKE MOCKETT,

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 32.]

AUGUST 11, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Annual General Meeting of the United Planters' Association of Southern India will take place at the Mayo Hall on Monday, August 20th. The Delegates will meet at 10.30 a. m. to arrange the Committees and the proceedings for the following days.

Below we print the names of those Delegates who are known to be coming to Bangalore. It is to be hoped that the Shevaroy Planters' Association will yet send a representative.

A contributor has sent us a cutting as to how Coffee goes into Germany, and to Mr. Brooke Mockett we are indebted from an extract from the *Morning Post*.

We publish the audited accounts of the Labour Department.

Annual General Meeting, 1917.

LIST OF DELEGATES.

Anamalai P. A.	...Messrs. C. Fraser & C. R. T. Congreve.
Bababudin P. A.	...Mr. S. N. Dennis, or Mr. H. Kerr.
Central Travancore P. A...	
Coorg P. A.	...Mr. E. L. Mahon, Mr. P. G. Tipping.
Kanan Devan P. A.	...Messrs. H. L. Pinches, A. J. Wright, & W. Lee.
Mundakayam P. A.	...Mr. J. J. Murphy or another.
Nilgiri P. A.	...Messrs. A. S. Dandison & J. B. Leslie Rogers.
North Mysore P. A.	...Mr. H. Godfrey & C. Danvers.
South Mysore P. A.	...Mr. C. Lake, C. J. Hayward & F. M. Hamilton.
Shevaroy P. A.	...
South Travancore P. A.	...Messrs. J. B. Cook & Chas. Hall.
West Coast P. A.	...Messrs. R. Lescher & C. Hunt.
Wynaad P. A.	...Messrs. C. E. Abbott, B. Malcolm & R. Ainsworth.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	62,536	8	2
Mr. A. J. Wright	...	60	0	0
„ J. Wm. Stevenage	...	10	0	0
„ R. G. Hutson	...	15	0	0
„ J. J. Murphy	...	100	0	0
„ Stephen Bayley	...	10	0	0
Total Rs...		62,731	8	2

COFFEE.**How Coffee goes into Germany.****PRIZE COURT STORY OF 12,000 TON SEIZURES.**

A more gigantic seizure of coffee than last week's was the subject of a claim for condemnation by the Crown in the Prize Court to-day. Last week one and a half million pounds were confiscated as prize.

The Attorney-General (Sir Frederick Smith) to-day asked for the condemnation of 12,000 tons seized in 35 consignments on twenty vessels.

The increase in the total importations of coffee for Scandinavia and Holland since the war had (said the Attorney-General) more than equalled the total importation into Germany before the war. And all coffee in Germany and Austria, it was significant to remember, was appropriated by the military and naval services.

To-day the Prize Court was confronted, the Crown submitted, by a great degree of cynicism, elaboration and tortuousness in order to deceive it. The firm of G. Trinks and Co., of Santos and Hamburg, had entered into an extremely elaborate conspiracy to provision Germany with coffee and, in case their cargoes were intercepted by the British ships, to prepare a tissue of deceptive documents to mislead the court.

It was hardly an exaggeration to say that since the steps taken by British ships to control the trade practically the whole of the coffee which went to Germany had been diverted to Scandinavia and Holland.

Before the war the yearly import into Scandinavia was just over a million bags, and there was re-export of 67,000 bags. During 1915 their surplus import over requirements was one and a half million bags.

Members of the shipping firm of which the Crown complained were German by birth and certainly German by sympathy, and a feature of the case was the extensive use of bogus and other cover of shippers and consignees. They would find the Hamburg house actually suggesting to the Santos house the fabrication of documents, and the suggestion apparently in practice cordially welcomed.

British Coffee Trade.**IMPORT PROHIBITION REMOVED.**

It is satisfactory to be able to state that yesterday it became known that the Board of Trade had permitted the importation to this country of 6,260 tons of British Indian coffee, and that the bond on the coffee already imported had been removed. The facts are that Mr. Lloyd George in the House of Commons on February 23rd said that there was a very large stock of coffee in this country, which would normally have gone to Germany, but was available here, therefore further importation could be prohibited. This decision would have ruined the Indian planters, as they had had a succession of two bad seasons, and depended on the excellent crop of this year to save the situation. They were at first, however, met by a positive refusal by the Board of Trade, though Sir John Rees represented the matter very strongly. The British Empire Producers' Organisation took the question up, and were staunchly supported, by the India Office, but not only was a small quantity only allowed to come through, but, as it arrived, it was held up by the Government at the port of entry, and the consignee was compelled to give a bond for double the value of the coffee.

GERMAN-OWNED COFFEE FAVOURED.

It was this bond which was taken off yesterday. Yet while this prohibition was imposed on British Indian Coffee the largely German-owned and grown coffee of Brazil was allowed to come in freely under license, and it is calculated that no less than 139,786 bags of this foreign, and in some cases German tainted, coffee was admitted, and in some instances despatched after the proclamation. Although Lord Pentland, in a speech he made to the Madras planters on May 15, stated that export up to 6,150 tons was to be allowed, people at this end could not get the prohibition removed, even on the coffee which had actually arrived. Thanks, however, to the energetic efforts of the British Empire Producers' Organisation, of Mr. Brooke Mockett, of the Indian Planters' Association, of the Coffee Trade Association of London, and other friends of the British industry, prohibition has at last been removed. It is unfortunate, however, that the monsoon has now broken and that the coffee will have to be carried by rail to some other Indian port. It is hoped that the situation will be saved, nevertheless, and that the case of the British East African coffee planters, which is also very strong, will receive a like favourable consideration.—*The Morning Post*.

FOR SALE.**Mutsaugor and Eachurvully Estates.**

NEAR SAKLASPUR, HASSAN DISTRICT, MYSORE.

These Estates, in which the late Mr. Graham Anderson, C.I.E., held a half share and which now belong to the senior partner, Mr. R. A. Anderson, and his wife, were first opened under "Old Manjarabad" Coffee and subsequently replanted throughout with the "Coorg" variety. To the old coffee new clearings have since been added and the whole of the Estates, with the exception of a few recent purchases of jungle land at Mutsaugor, are under the permanent assessment and the title deeds can be inspected.

The prices obtained for this Coffee on the London Market where it has been sold under the Barguai Mark are always among the best, as any reference to price lists will show.

Both Estates have good tanks which overflow all the year round so that there is ample water for pulping.

All other particulars may be had from—

W. H. JOHNSON,
33, Residency Road, Bangalore.

UNITED PLANTERS' ASSOCIATION

Labour

BALANCE SHEET AS AT

CAPITAL AND LIABILITIES.

	Rs.	A.	P.	Rs.	A.	P.
CAPITAL—						
Unspent Surplus Revenue held by the Secretary of the U. P. A. S. I. on account of the Department ...	...			73,265	4	9
Do. with the Director of the Labour Department ...	...			28,646	7	10
				<hr/>		
				101,911	12	7
LIABILITIES—						
For Security Deposit ...	300	0	0			
For Sundry Estates for Advances, etc. received at Head Office and Agencies ...	12,616	9	9			
For Salaries, etc. due and unpaid at Head Office and Agencies ...	5,098	6	2			
				<hr/>		
				18,014	15	11

Total Rs...	...	<hr/>	119,926	12	6
-------------	-----	-------	---------	----	---

Madras, 28th July, 1917.

We have to report that we have examined the Balance Sheet of the (Incorporated) as at 30th June 1917, and above set forth, with the books agencies.

We have obtained all the information and explanations that we have a true and correct view of the state of the Department's affairs according shewn by the Books of the Department and the agency returns.

The above Balance Sheet is subsidiary to the General Balance Sheet

OF SOUTHERN INDIA (INCORPORATED).

Department.

30TH JUNE, 1917.

PROPERTY AND ASSETS.

	Rs.	A.	P.	Rs.	A.	P.
FIXED CAPITAL EXPENDITURE.						
FURNITURE AND FITTINGS—						
At Head Office and Agencies ...	6,816	0	6			
Less Depreciation written off ...	1,932	3	5			
				4,883	13	1
STOCK OF ADVERTISING GOODS AT						
HEAD OFFICE ...				2,000	0	0
BOOK DEBTS—						
Due by Sundries at Head Office and						
Agencies and considered good ...	18,509	5	7			
Due by Sundries for advances made						
on account of sundry Estates at						
Head Office and Agencies ...	4,251	5	7			
Subscriptions due by Sundry Estates						
on account of						
year 1914-15 ...	1,596	0	0			
year 1915-16 ...	4,855	8	0			
year 1916-17 ...	26,637	9	0			
	33,089	1	0			
Less						
prepaid subscriptions...	159	0	0			
				32,930	1	0
				55,690	12	2
CASH AND OTHER BALANCES.						
Cash on Current Accounts—						
With the Bank of Madras, Madras ...	7,956	14	10			
With the Bank of Madras No. 3						
Account ...	40,335	3	9			
With the Bank of Madras, Mangalore.	1,656	5	0			
With the Bank of Madras, Coim-						
batore ...	2,184	7	0			
With the National Bank of India Ltd.	1,139	13	8			
Cash on hand at Head Office and						
Agencies ...	4,079	7	0			
				57,352	3	3
Total Rs...				119,926	12	6

Labour Department of the United Planters' Association of Southern India kept at the Head Office of the Department and with the returns from the

required, and in our opinion the Balance Sheet referred to above, exhibits to the best of our information and the explanations given to us and as

of the Association certified by us on this date.

(Signed) FRASER & ROSS, Auditors,

Chartered Accountants.

U. P. A. S. I. Incorporated, Labour Department.*Abstract of Expenditure from 1st July 1916 to 30th June, 1917.*

	DIVISION.		Rs.	A.	P.
Headquarters	43,109	12	0
Coimbatore	40,825	7	2
Srivilliputtur	31,008	3	7
Nagercoil	11,113	0	0
S. Canara	23,333	4	9
East Coast	20,541	11	4
Madanapalle	8,843	5	1
Mysore	19,960	2	7
Bellary	7,003	6	7
Secretariat and Control Committee	4,055	12	0
Registration Department	560	13	0
Total Rs...			2,10,354	14	1

AYLMER MARTIN,
Director.

FROM CAPE TO CAIRO.**A German intrigue which Failed.***[BY ROBERT WILLIAMS.*

Africa has been the last of the great areas of this world to become civilised, and as Livingstone—greatest and best and wisest of all explorers—predicted, Africa's salvation is coming through its industrial development. Great discoveries of mineral wealth, like Kimberley diamonds, the Rand and Rhodesian gold fields, and the Katanga copper deposits, have been the milestones measuring Africa's progress along the paths of civilisation.

When I first sailed for Africa in 1881, Cape Town struck me as a sleepy hollow lying in the arms of a lovely mountain. The railway had already been extended to Beaufort West, 300 miles north of Cape Town. The Kimberley diamond fields were discovered by British people and developed by British wealth, although the industry is now practically in the hands of naturalised British subjects of German origin. In 1885 the railway reached Kimberley.

Kimberley also produced Cecil Rhodes, Sir Starr Jameson, Mr. George Pauling, Mr. Alfred Beit, and Sir Charles Metcalfe, all great men in different ways. Mr. Pauling is the railway contractor who has constructed 4,000 miles of African railways; Sir Charles Metcalfe, of Sir Douglas Fox and Partners, was engineer for most of these railways. Mr. Beit, Rhodes' friend and financier, was a great man, one of the best men associated with South Africa, *and* he helped to build up the British Empire.

The main line was next pushed north to the Rand—the greatest gold field in the world—and the shorter “economic” lines were built to connect with Delagoa Bay and Natal.

The Rand was discovered by the British, and the people of this country put millions into its development. It was not long before financiers of German extraction became to a large extent masters of the Rand, as they had become of Kimberley.

Rhodesia was the next big mineral development, and therefore, the next of Africa's milestones on the road to civilisation. At that date, 1890, the terminus of the main line was at Vryburg, and it reached Bulawayo in 1897. Rhodes wanted me to report on the mineral prospects of Rhodesia, and formed the Zambesia Exploring Co. in order to finance the expedition. I started in March, 1891, and reported to Rhodes that the minerals were there all right, but that he must have a shorter economic railway from Beira to make them pay. That line was completed to Bulawayo in 1902.

FINANCING THE RHODESIAN RAILWAYS.

Rhodes had a desperate struggle with the finance of the Rhodesian Railways. He had asked the British Government to guarantee the interest, and never will I forget his disgust when that Government refused. “Would you believe it, Williams,” he said, “they would not back my bill? I only wanted their name—they would never have had to find a penny; they are simply children.” Rhodes' friend Pauling, the famous railway contractor, and the Messrs. Erlanger, bankers of this City, came to the rescue—they, too, greatly aided the development of the British Empire, for they raised about £10,000,000 sterling to finance African railways. Mr. Beit also assisted Rhodes with the finance of his railways and the Chartered Company, and practically controlled that body until his death, and his trustees have more or less done so ever since.

A COPPER RAND.

The next great mineral milestone 1,000 miles farther north, in the very heart of Africa—namely, Katanga.

In 1895 Mr. Rhodes was anxious I should assist him to find mineral wealth in Northern Rhodesia, and I sent up one or two of my best men with instructions to examine an area several hundred miles south of Katanga, where gold had been reported to exist. As my men found nothing of value, I stopped operations there and did nothing further until 1898, when, once again at Rhodes' request, I agreed to make another effort, as Mr. Rhodes was most anxious to find minerals that would help his railway forward. But as my services at that time were exclusively bound to the Zambesia Exploring Co., Rhodes granted certain rights in which that company should have a large interest. His grant included the right to locate a 2,000-square-mile mineral area anywhere in Northern Rhodesia, *together with a township and pier rights at the bottom end of Lake Tanganyika, which was intended to be the terminus in Chartered Territory of Rhodes' Cape to Cairo Railway.* In return for this grant Rhodes stipulated that £20,000 must be spent on prospecting the mineral area and that a steamer should be put on Lake Tanganyika to carry the Cape to Cairo telegraph material,

To work these concessions, a company—the Tanganyika Concessions, Ltd.—was formed. The steamer *Cecil Rhodes* was also built and put on Lake Tanganyika, and I organised a prospecting expedition, and appointed the late Mr. George Grey (Viscount Grey's brother) as leader, with instructions to search for minerals as close up to the Congo State frontier as possible, as I believed the great divide between the Congo and Zambesia rivers would be the most likely place to find them; these divides have always been rich in minerals, notably the Rand, which formed the watershed between the sources of the Limpopo and Orange rivers farther south. He and his party discovered the Kausanshi copper mine in Rhodesia, twelve miles south of the Belgian Congo frontier, on the divide.

I approached King Leopold and succeeded in making an agreement with him which gave the Tanganyika Co. the sole prospecting rights for minerals over 60,000 square miles of the Katanga district of the Congo State, adjoining Northern Rhodesia. The King did not believe I should prove mineral wealth to exist in his country, as Professor Cornet, the well-known Belgian geologist, had been sent out by him to examine certain old native workings which had been the subject of comment by Livingstone, Cameron, Stanley, and later by the Portuguese explorers, Ivens and Capello, who had actually visited and described them.

The report by Professor Cornet (which had never been published) had been so unfavourable that the Belgians made no further effort for eight years. Then, where angels feared to tread, I came along. They showed me Professor Cornet's report, and I pointed out to King Leopold that the weak point in that report was, in my opinion, that it was nothing more than a report on the holes and *debris* left by the old workers, and that no work had been done to test what was under these holes.

The financial position of the Congo State was going from bad to worse at the time, and King Leopold knew that the discovery of mineral wealth would greatly assist him. He therefore was only too happy to encourage my efforts, so much so that he gave me a 40 per cent. interest in any wealth I discovered, and even assisted me financially.

George Grey and his staff in a very short time located these mines and many other deposits, including copper, gold, tin, and diamonds. They did magnificent prospecting work. They opened up, exposed, and proved the ore bodies by hundreds of feet of shafts and tunnels 1,000 miles from any port or railway. They constructed bicycle tracks all over the country, as animals were not possible on account of tsetse fly, and travelled through unknown and uncharted regions—literally filling in the map of Central Africa—where cannibalism still existed, and, in co-operation with Belgian officials, setting slaves free wherever found.

After spending £100,000 in these developments, I was satisfied that we had proved, among other things, the existence of a great copper belt, probably the greatest in all the world, extending over about 250 miles of country—in short, a Copper Rand.

Grey did more; he established a good name among the natives of Rhodesia and Katanga for honest and fair dealing, a fact which has been a great influence in our success to this day.

Katanga is now giving tangible proof of its mineral resources. The smelting works there have already yielded a total value of £6,000,000 sterling, although they only started to produce on a small scale in 1912. They are at the present moment producing at the rate of 30,000 tons of copper per annum, of a value of about £4,000,000, and this output will go on increasing steadily year by year. At no distant date a yearly output of 100,000 tons may be confidently expected. It is a remarkable development when one realises that these smelting works, which are a monument to Anglo-Belgian enterprise, stand where but a few years ago barbarism was rampant.

The railway developments which have also resulted from the opening up of this latest mineral zone will, when completed, be probably the greatest in all Africa. Railways are now coming from the north, south, east and west towards this great mineral and future industrial centre. Thus are minerals once again proving themselves veritable *milestones in the progress of African civilisation*.

GERMAN EFFORT TO QUASH THE CAPE TO CAIRO SCHEME.

At the date when these discoveries were made, it was Rhodes' intention to take his Cape to Cairo Railway to the southern end of Lake Tanganyika, and to utilise the 400-mile waterway as part of the route towards the north. But Germany thwarted his scheme by refusing to recognise the cession of the strip of Congo territory between Lakes Tanganyika and Kivu, granted by King Leopold to England to enable Rhodes to carry forward this railway. The reason we all now know. Germany had already fixed her eyes on the Congo.

Rhodes told me he would have liked to run his line through the Congo State, and that he had tried to negotiate this with King Leopold, but had failed. "I thought I was clever, but I was no match for him, Williams," he said. Seeing that I had succeeded in negotiating with King Leopold on the subject of minerals, Rhodes suggested I should approach the King with a view to securing the right to build the Cape to Cairo Railway through the Congo State to the Nile.

I agreed to do this for Rhodes, if on his part he would get the Chartered Company to give me some assurance in writing to the effect that it was their intention to extend their railway up to the Congo frontier. I also asked, in view of this diversion of the route, to be allowed to form the township at the terminus of their line at the Congo frontier instead of at the southern end of Lake Tanganyika as originally arranged. Having received written assurances on these points, I placed the whole matter before King Leopold, who gave me personally the right to construct a line through the Congo State from the Rhodesian frontier to the Nile. I offered Rhodes the benefits of that concession and a large share of my mineral rights to assist him to finance the railway. But Mr. Beit, who was behind Rhodes, demanded such an extravagant share of the mineral rights of Katanga (not only of mine, but also of King Leopold's) as the price of bringing the railway forward to the Congo frontier, that the scheme fell through.

The Germans were particularly anxious to quash this Cape to Cairo scheme, and one of their agents went to Brussels "to put a spoke in Williams' wheel." Germany evidently was, even at that date, aiming at securing the Belgian Congo for herself. It was to form part of her Central African Empire, and the British Government was too blind to see it and too

supine to realise the vital importance to the British Empire of Rhodes' great scheme. I shall never forget Rhodes' disappointment. He died shortly after this, but not before I had promised him I would do my best to see his line North.

If the Cape to Cairo Railway could not be financed to the Congo frontier with Rhodes alive, there seemed little chance of it arriving there for many years with Rhodes dead, and with the British South Africa Company dependent for its finance on the same group of financiers of German origin whose brilliant talents had mopped up in succession all the big mineral developments farther south, and who apparently controlled the destiny of a British Colony.

AN ALTERNATIVE ROUTE.

I saw I was stonewalled, and I therefore studied the map of Africa to find an alternative route. I saw that the shortest route to the sea was along the same great divide between the Congo and Zambesi Rivers as that on which we had discovered the minerals. It led from Katanga in an almost straight line westward to the old Portuguese town Benguella. I saw instinctively that the economic route from Katanga to the coast lay along the old slave-road, and moreover that this route, with Lobito Bay as its terminus, was nearer by about 3,000 miles to England! I pointed this out to King Leopold, and having got his approval and promise of co-operation, I went to Lisbon and, without the knowledge of the British Government, secured from the Portuguese Government the right to construct the Benguella Railway.

Katanga had now a chance of becoming master of its own destiny. It had found a short independent and economic route to the sea through Portuguese territory to a Portuguese port; just as the Rand and Rhodesia, farther south, had found their economic routes to the Portuguese ports of Delagoa Bay and Beira respectively.

But Germany had already grasped the value of this route: had already seen the future agriculture and trade prospects of Angola, and realised the magnificent advantages of the natural harbour of Lobito Bay, and how valuable it would be as the western port to her Central African Empire. Four years before Portugal granted me the Benguella Railway Concession, Germany had induced the British Government to enter into a secret agreement, under which our Government had pledged itself not to interfere with Germany's *political* efforts in Angola—the very country in which I had secured the right to build a trunk railway.

Portugal being no party to this secret agreement, was entitled to do as she pleased, and perhaps was only too delighted to get a British subject to oust German designs, especially as German newspapers were already openly stating that Portuguese Angola would eventually become a German colony. I learned all this afterwards.

Germany was very angry about the Benguella Railway Concession. She could not tolerate such audacity on the part of little Portugal. The German Ambassador in Lisbon was severely reprimanded. He never forgave Portugal or my humble self for snatching so valuable a property from under his nose.

GERMANY'S NEXT MOVE.

I wondered what would be Germany's next move. It took a curious form—a philanthropic ardour for the African native! It was always a curious fact to me that the Congo atrocity agitation broke out furiously in this country immediately after I had revealed the wealth of Katanga and secured the Benguela Railway Concession.

The report of Mr. Roger Casement, who was the British Commissioner sent to report on these atrocities, seemed to me so exaggerated and absurd that I told the late Sir Martin Gosselin, British Ambassador at Lisbon, that I believed Casement was in the pay of Germany. The late Mr. Codrington, an able and highly honourable Administrator of Northern Rhodesia, also told me at the time that he did not believe in Casement's report whilst he was quite certain some of the photographs of mutilated natives were taken in a district of that country under his own control, where every second or third native had been mutilated previous to Chartered rule. Livingstone and everyone who followed him knew that government by mutilation was the rule of all native kings throughout Central Africa for hundreds of years. I therefore came to the conclusion that if Germany had not actually promoted the Congo atrocity agitations, she was actively prompting it.

I also knew that Germany was trying hard to bring about another Berlin Conference, with the object of settling the Congo atrocity question. *Her object was to take the Belgian Congo for herself, under the pretext of giving it the advantage of humane German government.*

I had an audience with King Leopold at that time and discussed many matters with His Majesty; among others I told him that for the government of the natives of the Congo he should send out the highest class of men Belgium could produce, and pay them well, and also pay the natives in cash instead of goods, so that the native could buy what he liked, and, more important still, *what his women liked!* The King took my advice. On the subject of the atrocity agitation I said that I believed the facts as reported in our country were terribly exaggerated. The King remarked: "England does not want Germany in the Congo State, does she, Mr. Williams?" I told him I did not think the British people cared a rap about the Congo or who had it, but that, if he wished it, I would try to get the British Government to interest themselves in the Congo, and to carry the Cape to Cairo Railway through the Congo State.

The King suggested I should see Lord Cromer and try to get him to settle the Lado Enclave difficulty—I need not go into the history of that trouble on this occasion—also to ask him if he would agree to give the Belgians a pier on the Nile for the Belgian end of the railway. He also desired me to ask Mr. Joseph Chamberlain for his support to the construction of the line. This was a formidable enough programme, even for an accomplished diplomatist. It was certainly a large order for me to undertake.

However, I determined to make another try to get Rhodes' railway dream turned into a concrete fact. I went to Cairo and saw the late Lord Cromer. He quite agreed that the best and only practical route for the Cape to Cairo Railway was through the Congo State, utilising the great navigable Congo River. He described the Tanganyika Lake route as a "chimerical" scheme, on account of the engineering difficulties that would be encountered in that part of Africa. "But why call yours the Cape to Cairo Railway, Mr. Williams? Call it the 'Cape to the Nile,' for *there*

it will meet the Egyptian system of railways." He declined to give King Leopold a pier on the Nile! "The Nile is Egypt's," he said; "we will build the connecting line ourselves." Lord Cromer knew his mind about Egypt, and even though he declined to give King Leopold a pier on the Nile I could not help admiring his firmness in the matter.

I then returned to London and saw Mr. Joseph Chamberlain. I told him all about my conversations with King Leopold and Lord Cromer, and that if he gave a British Government guarantee of interest on £10,000,000, I would get the Cape to Cairo Railway built through the Congo State. Mr. Chamberlain appeared much interested and told me "he believed it would all be carried out in time," but that it would be impossible to get the Chancellor of the Exchequer to agree to do it then, as the Boer War had cost so much, about £220,000,000.

I sympathised with Mr. Chamberlain, though again I got nothing out of him. He was running in harness with impossible people, men with no vision and no business capacity, and a general idea that this country was always on the verge of bankruptcy.

I was asking the British Government to guarantee the interest on £10,000,000, a guarantee which in all probability they would never have been called upon to make effective. Had the guarantee been granted the railway would now have been built, and would be carrying endless supplies to our Mediterranean Army, and possibly to our Mesopotamian Forces also. It would have saved our shipping during this war, and, as the whole line and all the rolling stock would have been made in this country the money would have all come home again. In the case of railways the money only goes out of one pocket and comes back twofold into the other. I myself have raised and spent over £6,000,000 sterling on those African railways since that date. The plucky little Belgian nation has spent about as much, and Germany and Belgium have both offered me millions more on condition that all the permanent way material and rolling stock was bought in those countries, and even the banks of little Portugal have given me financial support for the same objects.

A CO-OPERATIVE RAILWAY SCHEME.

Yet England could not afford to back this railway! The British Government could not afford to guarantee the debenture interest! The British Government, who are spending some £7,000,000 per day at the present time, could not afford to assist Rhodes during his life, or me after his death, to build the Cape to Cairo Railway! Is it a wonder that this country was losing its trade to shrewder and bolder rivals?

And so I failed to get the main trunk-line through the Congo State for the second time.

The construction of the Benguela Railway was meantime progressing steadily. I again met King Leopold, and we resolved upon a *great co-operative railway scheme*, comprising over 3,000 miles of railway. We agreed to build the Katanga Railway jointly, in order to link up the Rhodesian Railway with the navigable Congo River at Bukama. The King undertook to construct a railway from Leopoldville to Bukama, also the section that would connect the Benguela Railway with the Katanga Railway and the Copper Belt, and the earnings of all these railways were to be "pooled." About 1,000 miles of this programme are now completed, and 2,000 miles remain to be laid.—*Export World and Commercial Intelligence.*

(To be continued.)

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 33.] AUGUST 18, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, has returned to headquarters, and contributes an article to the Scientific Department which contains paras dealing with Mr. Chadwick's appointment as Trade Commissioner for India, an extract from the "Times of Ceylon," on Ceylon Tea Sales, and from the "Agricultural Journal of India" on Lantana control. He gives notice of a Meeting of the Board of Agriculture at Poona in December next.

We conclude the interesting article taken from the "Export World and Commercial Intelligence" entitled from Cape to Cairo.

Our correspondence columns, at the request of the Chairman, U.P. A., contain various letters and telegrams which have passed between himself, Messrs. Harrisons & Crosfield, Ltd., Mr. Cook and the South Travancore Planters' Association, on the subject of the Calicut Meeting at which resolutions were passed about Tea Exports and tea allotments. These are subjects which undoubtedly will lead to much discussion at the Annual Meeting.

The Chairman of the Mundakayam Planters' Association has sent for publication a circular letter addressed to Superintendents, Proprietors of Rubber Estates and Directors of Rubber Companies, giving the main points in arguments which induced his Association to frame a scheme for a Mycologist for Rubber Growers in Southern India, and an estimate for expenditure on Scientific Officer, staff, etc. for 5 years. A resolution embodied in his letter to Honorary Secretaries of Associations representing rubber acreages, will be proposed at the Annual Meeting, and will, we hope, receive the support and encouragement it and the Chairman so deservedly merit.

We have been informed that the Management of the West End Hotel are giving a dance on Thursday the 21st and there will be a Gymkhana Race Meeting on Saturday, 25th of August.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	62,731	8	2
Mr. P. G. Tipping	...	...	100	0	0
Total Rs...			62,831	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

The Deputy Director of Agriculture, Planting Districts, returned to headquarters on 13th August from an inspection, accompanied by the Government Mycologist, of the experimental work which is being done in connection with the abnormal leaf-fall of Hevea Rubber on the West Coast. It is hoped to present a report on this work as far as it has gone at the forthcoming Meeting of the U. P. A.

Mr. T. D. Chadwick, I. C. S.

It was stated in the House of Commons on 8th August that Mr. Chadwick, whom planters will remember as the late Director of Agriculture, has been appointed Indian Trade Commissioner with a view to developing Indian trade in Britain. His office will be in the City and it is hoped that he will start work in the Autumn. Mr. Chadwick recently visited Russia on a commercial mission and he will visit France and Italy on a similar errand and thereafter take over the appointment of Trade Commissioner for India.

Ceylon Tea Sales.

After a lapse of a fortnight about three and a half million pounds of tea were offered at public sale on 7th August. The selection covered a varied assortment from every district, but the immediate demand was not equal to the size of the sale, any active buying being confined to quite a few. The result was that prices generally ruled on a much lower basis. The only teas for which there was any steady demand were good liquoring pekoes, but even they were only able to obtain some advantage in price above the other grades of the same quality. Common and undesirable stalky kinds, of which there was a considerable quantity, were practically unsaleable. Dusts and fannings were neglected except to a limited extent for Bombay.—*Times of Ceylon*.

Lantana Control.

The following is an extract from the *Agricultural Journal of India* (XII-3-). The spread of Lantana in India and Burma has attained such proportions that it has become, or is becoming, a serious problem in many districts, so much so that in Coorg it has already been found necessary to legislate especially for its control. In view of the successful control of this plant in other parts of the world, notably in Hawaii, by the introduction of insects which attack Lantana and thereby check its growth and spread, it has been proposed that such insects might usefully be employed in India. But before introducing any such insects from abroad it has been considered advisable to see whether we have not already in the Indian Empire any insects which could be used successfully for this object and with this end in view, Mr. Y. Ramachandra Rao, M.A., Entomological Assistant in the Madras Department of Agriculture, has been deputed for a period of two years in the first instance, to work at this problem under the Imperial Entomologist. Mr. Ramachandra Rao will travel throughout India and Burma and make a close study of the various insects found on Lantana and of any factors favouring or limiting its spread in different districts, so that information will be available to enable the problem of its control to be taken up on the broadest basis.

The Imperial Entomologist will be very pleased to receive any authentic detailed observations regarding the entry, spread, or disappearance of Lantana, or specimens of any insects found attacking it, in any localities within the Indian Empire.

Board of Agriculture.

The next Meeting of the Board of Agriculture in India will be held at Poona from 10th to 15th December. There are several subjects on the Agenda which are of interest to planters and it is to be hoped that the U. P. A. will avail themselves of the invitation issued to them by the Board some years ago to send one of their members to the Meeting as a delegate and representative of the Planting community in addition to the Deputy Director of Agriculture, Planting Districts, who is a member of the Board.

The following subjects which are before the Board for discussion are of special interest to planters:—

- (a) The value of phosphatic manures in India and the possibility of arranging for the manufacture of superphosphates on a larger scale in India so as to lessen their cost.
- (b) What action can profitably be taken by Government to discourage the adulteration and mixing of Agricultural produce.
- (c) The necessity for legislation regarding the sale of fertilisers in India on lines analagous to, though not necessarily identical with, those of the Fertilisers and Feeding Stuffs Act now in force in the United Kingdom.

On this latter subject the U. P. A. S. I. should have a definite policy to pursue while they have often passed resolutions with regard to the desirability of the manufacture of Superphosphates in India.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

THE METRIC SYSTEM AND FOREIGN TRADE.

Exporters will be interested to hear that the adoption of the metric system in the interests of foreign trade has been endorsed by the bankers. The committee of bankers and others appointed some time ago to enquire into the question of decimal coinage and a metric system of weights and measures have just published a report, in which they express the opinion that the existing system of weights and measures is an obstacle to the extension of foreign trade, and they recommend the adoption of a decimal coinage in the hope that it may be the first step towards the introduction of the metric system of weights and measures into this country.

They consider that any such system of decimal coinage should be based on the pound sterling as it at present stands, and propose that this should be made divisible into a thousand parts to be known as 'mils' the other coins being the half-sovereign, double florin (4s.), florin half florin, quarter-florin, ten mil piece, would be almost equal in value to the present farthing.

The committee point out that if the proposed system be adopted the existing silver coins will continue (in some cases under new names) with the exception of the crown, half crown, and three-penny piece, which it is proposed to discontinue.—*Export World and Commercial Intelligence.*

FROM CAPE TO CAIRO.

A German intrigue which Failed.

BY ROBERT WILLIAMS.

(Continued).

THE END LINK.

The last link in this international chain of railways proved the most difficult of all to provide for, although it was only 132 miles in length and lay in British territory. It was the little bit between Broken Hill in Rhodesia and the Congo frontier. Here was the trunk line of South Africa pushed all the way from the Cape (a distance of over 2,000 miles) to Broken Hill, where it came to a dead end in the wilderness within hail of another great mineral milestone.

Mr. Beit was dead, but one would have thought that the money left by him purposely to assist the Rhodesian Railways would have been promptly used by his trustees to build this small section of 132 miles, in order to secure the mineral traffic of Katanga; that alone could make the line pay. Not a bit of it; there the railway stood literally dying for want of traffic, unwilling to extend itself to serve British or Belgian interests.

Dr. Jameson, who was the only director on the Chartered board who knew Rhodes's intention, and who was, therefore, always anxious to get the Rhodesian pushed forward to the Congo frontier, used every possible argument to induce the Beit trustees to finance this small last link, but without success. I ultimately received a letter from the Chartered Company stating that they could not find the money. I applied once more to the British Government to assist to carry forward the Rhodesian Railway to the Congo frontier. I saw Colonel Seely, then the Under-Secretary of State for the Colonies, who gave me his sympathy, just as Mr. Chamberlain had done, but no hope of financial assistance.

Rhodesia, a Colony in which millions of British capital had been sunk, and in which many British men and women had made their homes, the Rhodesian Railway, the Chartered Company, and the life's work of one of England's greatest Empire builders, could go to ruin, rather than the British Government should assist an enterprise of immense value to the Empire by guaranteeing £40,000 interest per annum on the £700,000 required to carry forward a British railway (which had already come 2,000 miles from the Cape) to a mineral field of international importance. I saw that if it was to be done I must do it myself, and I wrote to Dr. Jameson telling him I would arrange the finance for the Rhodesian section on certain conditions. Suffice it to say that, with the assistance of Mr. George Pauling, the great African railway contractor, and the Messrs. Erlanger, bankers, I surmounted the difficulty.

ARRANGED FOR AT LAST.

The Cape to Cairo Railway was arranged for at last, and it will soon be opened right through to Bukama on the navigable Congo, 2,600 miles north of Cape Town. *Only fifty miles of steel rails are required to complete it.* The route to the mouth of the Congo has already been connected by steamer and rail as the result of Belgian enterprise and energy, supplemented by the whole-hearted sympathy of the enlightened King Albert and Monsieur Renkin, his Colonial Minister, and assisted by my great Belgian colleague, Monsieur Jean Jadot, the famous banker.

The Berlin Conference never came off, and Germany had to devise other plans to attain her ends in Central Africa. Her banks offered to finance our Benguela Railway to completion on condition that they got full control of that railway—an offer which was at once refused, although the bribe was immense.

In all these efforts to keep the Benguela Railway out of German clutches I was most ably backed by almost all the Portuguese Ministers, and by my loyal friends in Portugal, particularly General Sir J. J. Machado and Mr. Lane, and my colleagues on the Board of the Benguela Railway Company.

THE GERMAN FOOTING IN AFRICA.

The German banks, however, actually secured the control of the British Nyassa Consolidated Co. I was asked at the time to prevent the control going into German hands, but, as I was unable to raise the large sum of money necessary to do this at the time, I warned the British Government in March, 1914, four months before the war, of the intended transaction. I am not blaming those who carried this business through in the interest of certain German banks. It may not have been a particularly patriotic thing to do, but it was a perfectly legitimate business transaction. My point is that it was all done within the law, and will be done again and again whilst the law is as it is. Unless the law is altered at once to prevent aliens, or British companies owned by aliens, naturalised or otherwise, from buying shares in the names of nominees, then Germany will be found, when peace is declared, to have purchased a future in Africa, and to be in control of British companies owning great railways and harbours, just in the same way as they have secured the control of the British Nyassa Co. And unless this British Nyassa transaction is upset Germany will still have a footing in East Africa after the war, and control of Port Amelia, the best harbour on the East Coast of Africa, with other concomitant rights.

LONDON TO THE CAPE BY RAIL (?).

At the present time you can travel from the Cape to the mouth of the Congo River by rail and steamer, a distance of 4,900 miles, with the exception of the 50 miles I have mentioned. The Cape to Cairo route will be complete by rail and river when the railway connecting Stanley Falls with the Nile has been completed. Given the Channel Tunnel and a train ferry across the Bosphorus, one might certainly look forward at no distant date to taking a through train at Victoria Station to Cape Town. It will also be possible to disembark at Lobito Bay and travel by rail to almost every important town in the African Continent as soon as the Benguela Railway is connected up with the Cape to Cairo line at Katanga.

The great mineral area, the milestones of Africa, have already produced a value of 800 million sterling up to date, and are producing steadily about 62 millions sterling per annum. Almost all the railways are paying concerns, the shorter economic ones paying handsomely.

I have also shown how difficult the struggle has been to keep British interests intact against German intrigue, without financial assistance from either British banks or the British Government. Before this great war Germans were far and away the most influential people in this country. Germans were all-supreme, and they will continue so to be after the war, *unless the country reforms its business and educational systems.*
—*Export World & Commercial Intelligence.*

CORRESPONDENCE.

Daverashola Estate,
Devarshola P. O.,
Nilgiris, 5th August, 1917.

THE SECRETARY,
U. P. A. S. I.,
25, South Parade,
Bangalore.

Tea Export—Calicut Meeting.
U. P. A. S. I. Circular No. 40/17.

Dear Sir,—In view of a wire received from the Honorary Secretary of the S. T. P. A. I think it would be advisable to give an explanation for the reasons that influenced me in issuing the above Circular.

The Hon'ble Mr. Barber's letter of the 8th April 1917 to the Hon'ble Mr. H. W. F. Gillman, I.C.S., (para 3) :—

The distribution entirely excludes teas that have hitherto been shipped *via* Ceylon."

"Many Estates were selling in Colombo, and when that market closed they began to ship to London and in some cases, I am told, have entered forward contracts in London.

"This tea will not come under the Ceylon allotment for, I understand, that not only will Ceylon refuse to ship Indian teas to London but also that she proposes to dump her surplus for absorption in India."

I think this may have influenced the N. P. A. in forming their resolution passed unanimously at the Calicut meeting as follows :—

"That allotments be made to individual Estates and not to the shipping agents. That all Estates should be placed on the same footing whether they have been in the habit of shipping to the United Kingdom or elsewhere. That old and young Estates should share alike and that a statement giving the actual crops for the last two years with detailed estimates for the current season be called for and that such information be placed before District Committees to be formed for the purpose of passing such estimates. That those estates that wish to have an allotment should apply for the same through the U. P. A. S. I., who will pass on the request and information to the District Committees for their report. That this shall be put into force as from the 1st of March 1917."

On the 6th July, the Colombo Tea Traders' Association passed the following resolution :—

"That in view of the present restriction as regards exports of tea to the United Kingdom combined with the shortage of tonnage generally the sale of Travancore and Indian Teas be limited to such marks as have been consigned regularly to this market in the past, and that such marks be sold on a *pro rata* basis as in the case of Ceylon Teas."

On the 7th July Messrs. Harrisons & Crosfield, Quilon, wrote to the Secretary of the U. P. A. S. I.:—

"We confirm our telegram of date to you as per copy herewith. The actual Resolution passed is as follows:—That in view of the present restriction as regards Exports of tea to the United Kingdom combined with the shortage of tonnage generally the sale of Travancore and Indian Teas be limited to such marks as have been consigned regularly to this market in the past, and that such marks be sold on a *pro rata* basis as in the case of Ceylon Teas. And in addition they have further resolved to place the regulation of sales including private sales in the hands of a Regulating Committee. As you understand Calicut Resolution No. 2 provides for allotments to the United Kingdom being given to all Estates irrespective of where they shipped to before. This now means that certain Estates will be favoured with an allotment to Colombo as well as to England, which you will agree is manifestly unfair. We trust that steps will be taken to have matters remedied immediately."

(Copy of Telegram).

"Upasi, Bangalore,

"Colombo Tea Traders' Association passed resolution yesterday limiting sale of South Indian Teas to such marks as have been consigned in the past to their market and such marks to be sold on *pro rata* basis as in case of Ceylon Teas stop obviously now Calicut resolution 2 will have to be altered immediately, otherwise certain Estates will have allotments both to U. K. and Colombo inform Chairman.—Crosfield."

On the 17th July Messrs. Harrisons & Crosfield, Quilon wrote, in reply to my letter of the 12th July to the Secretary of the U. P. A. S. I., acknowledging receipt of their wire, to the Secretary of the U.P.A.S.I.

"FLETCHER NORTON, ESQ.,

Secretary U. P. A. S. I., Bangalore.

Tea Exports.

"Dear Sir,—We have your letter of 14th instant, and note your Chairman's comments on our telegram. We are sorry however we do not understand what Mr. Nicolls means and shall be glad if he will explain himself. There is no question of being more definite. We stated what appears to us to be an absolute fact and certain Estates will be allowed to ship to Ceylon in addition to getting an equally proportionate allotment to other Estates to the United Kingdom unless the Calicut Resolution is altered. It was very evident that the meeting wished all Estates to be put on a uniform basis as witness Resolution No. 5 which says:—'That all Tea sold to the War Office or other Government Departments in the United Kingdom be included as part of the allotment of the Estate or concern contracting.'

"Yours faithfully,

"Harrisons & Crosfield, Ltd.,

(Signed) "J. MACKIE,

"Manager."

On the 11th July Mr. J. B. Cook, President of the South Travancore Association, wrote:

"Ashambo, 11th July, 1917.

"J. S. NICOLLS, ESQ.,

Chairman, U. P. A. S. I.

Tea Exports.

"Dear Sir,—At the Calicut meeting of 26th June on the above subject, Resolution No. 2 includes this clause:—

"That all Estates should be placed on the same footing, whether they have been in the habit of shipping to the U. K. or elsewhere."

"Since then the Colombo Tea Traders' Association has passed the following resolution:

"That in view of the present restriction as regards exports of tea to the United Kingdom combined with the shortage of tonnage generally the sale of Travancore and Indian Teas be limited to such marks as have been consigned regularly to this market in the past, and that such marks be sold on a pro rata basis as in the case of Ceylon teas, and are going to place all sales in the hands of a Regulating Committee. It seems to me that if the clause mentioned in Calicut Resolution No. 2 is accepted and passed by the Indian Government, it will be distinctly unfair as some S. I. Estates will ship both to Colombo and to U. K. while others can only get allotments for the latter. In view of the great shortage of tonnage for the U. K., especially from Tuticorin and the West Coast Ports some estates down here may not even be able to obtain the space that has been allotted to them up till end of August. I think that part of Resolution No. 2 should be withdrawn, or at least carefully reconsidered."

"Yours faithfully,

(Signed) J. B. COOK,

Chairman, S. T. P. A."

On the 4th August, the Honorary Secretary of the South Travancore Association wired me:—

"South Travancore Association protests against the Chairman's proposal that all tea exported from India be included in allotment for the United Kingdom and considers shipment of tea to countries other than United Kingdom is not matter for United Association to deal with."

I myself quite agree with the views taken by Messrs. Harrisons & Crosfield and the President of the South Travancore Association. At time of the Calicut Meeting, I was under the impression that the position as regards the Colombo market was as indicated in that para of the Hon'ble Mr. E. F. Barber's letter to the Hon'ble Mr. H. W. F. Gillman, I. C. S., quoted by me in this letter and I therefore welcomed that part of the Nilgiri Planters' Association resolution reading:—

"That all Estates should be placed on the same footing, whether they have been in the habit of shipping to the United Kingdom or elsewhere," indicating the idea that planters were going to stand side by side.

Will you please circularize this letter amongst Councillors of the U.P.A.S.I.

Yours faithfully,

(Signed) J. S. NICOLLS,

Chairman, U.P.A.S.I.

Mundakayam Planters' Association.

Mundakayam,
Travancore,

August 6th, 1917.

Circular letter to Superintendents, Proprietors of Rubber Estates,
and Directors of Rubber Companies.

Dear Sir,

**The Mundakayam Planters' Association Scheme for a
MYCOLOGIST FOR RUBBER GROWERS IN SOUTHERN INDIA.**

At the last general Meeting of the above Association, it was decided that Superintendents and Managers be asked to put the case for a Mycologist before their Companies or Estate Proprietors, with a view definitely to obtain the financial support necessary. To assist you in doing this, I give below the main points in the arguments which have induced the Association to move in the matter, and trust you will find them of use in submitting the question.

(1A.) *The necessity for a Mycologist.*—To the younger generation of Rubber Estate Superintendents, it is perhaps not so well known as it is to the older men, and to men who have worked Coffee Estates, that the Coffee Planting Industry in Ceylon was completely destroyed, and that Coffee planting in certain Districts in Southern India has almost ceased to be a profitable Industry, solely through the attacks on Coffee Bushes of various fungoid diseases. It is the fear that history may be repeated in the case of Plantation Rubber, now that it is known that *Hevea Brasiliensis* is peculiarly subject to fungoid diseases attacking the leaves, the branches, the stems, the virgin bark, the renewing bark, and also the roots,—a sufficiently formidable list—, that has induced, not only the Mundakayam planters, but the whole of the Rubber Planting Industry, deeply to study the question, and try to devise means whereby a specialist in fungoid diseases may be obtained to assist the industry in fighting disease, and thereby securing estates from the fear of the extinction or the crippling of the industry.

(B.) Should it be deemed that the above is too drastic a representation of the facts of the case, there is no doubt in the mind of the intelligent planter, that already there has been, and is, even in so young an industry, a serious diminution in yields through the ravages of diseases, and all are aware that the cost of successfully fighting diseases would be more than ten times re-paid by resultant increased yields and the maintenance of the capital value of Estates. These two points then would seem to shew that the employment of a trained intelligent specialist such as a Mycologist, is an imperative necessity.

(2) *Co-operation.*—The idea is that the planting Districts of Travancore, Cochin and Malabar, should co-operate, and thus reduce the cost of the scheme, but we may not be able to induce *all* the acreage in these Districts to subscribe. This has been foreseen, and an alternative estimate prepared, to shew that the *Mundakayam District alone* could support such an expenditure as would be necessary.

(3) It may be argued that it is impossible to obtain a good man at this period, owing to the war. That admittedly may be so, but, should the war end within the next year or so, men will be available, and we

shall *not* be ready to employ them, having no organisation, and no funds with which to do so, unless we now take steps to secure the necessary financial support.

It would appear then, that we should now make ready for the employment, at once if possible, but certainly as soon as the war ends, of a trained specialist.

(4). *Control*.—The Mycologist would be under the supervision of the Deputy Director of Agriculture, Planting Districts, who would have control of his movements in the scheme embracing all South India rubber, but who would only direct his scientific activities were he employed by the Mundakayam District alone.

(5). To insure the stability of the financial support of the acreage contributing to the scheme, it has been suggested that the Government of India be approached through the United Planters' Association of South India, to arrange for the yearly contributions to be paid through Government, and the subscriptions would be then in the nature of a voluntary tax, or cess, on the acreages concerned, and would be a guarantee for all promised sums being collected.

(6) *Cost*.—Admitting the desirability of the help of a scientist, the question of the cost to be incurred is important. At first sight this appears to be large, but when the rubber planted area of Southern India is considered it will be seen that the cost is small, not amounting in any case to more than Re. 1 per acre.

To put the point in a way which should appeal to the Proprietors of Estates, or Directors of Companies, it is only necessary to show that by means of Scientific advice an increase of only one lb. per acre of rubber need be secured to pay for the whole expenditure.

Attached will be found rough estimates of the 2 schemes.

In South India there are 36,000 acres of European owned rubber and calculating the estimated expenditure on the scheme at Rs. 36,000, the cost would be Re. one per acre.

In Mundakayam there are 13,000 acres of European owned rubber and the estimate shows that the cost of a Mundakayam scheme alone would be Rs. 2-8-0 per acre for the first year, and Rs. 2 per acre per annum afterwards.

Neither of these are large amounts if deemed as an insurance against the lowering of the capital value of estates through the attacks of disease, and a very insignificant amount, if, by its expenditure, an increase of say only 10 lbs. per acre per annum can be secured.

Could we successfully combat abnormal leaf fall alone, it has been estimated by a well-known rubber planter in South India, that crops could be increased by 33%. The argument for the expenditure asked should therefore be sufficient on this point alone, to induce a promise of financial support.

I trust that the foregoing will be of use to you in your presentation of the case, and that you will kindly do your best to obtain the support necessary.

Yours faithfully,

(Sd.) J. R. VINCENT,

Chairman,—M. P. A.

ESTIMATE FOR EXPENDITURE ON SCIENTIFIC OFFICER, STAFF, ETC.,
FOR 5 YEARS.

MUNDAKAYAM DISTRICT ONLY.

	1918.	1919.	1920.	1921.	1922.
	Rs.	Rs.	Rs.	Rs.	Rs.
Mycologist's salary Rs. 800 rising to 1,000—per mensem...	9,600	10,200	10,800	11,400	12,000
Allowances, Lump sum Rs. 25 per mensem ...	300	300	300	300	300
Laboratory and upkeep ...	2,500	250	250	250	250
Equipment and upkeep ...	3,000	500	500	500	500
Office contingencies, Insurance, Stationery, periodicals, etc. ...	1,200	1,200	1,200	1,200	1,200
Bungalow and upkeep includ- ing Furniture, etc. ...	10,000	500	500	500	500
Horse and Horse keeper ...	750	360	360	360	360
Sundries—Peons, Typist, Type- writer, etc. ...	1,000	500	500	500	500
Total Rs...	28,350	13,810	14,410	15,010	15,610
Cess per acre asked for by Committee Rs...	2/8	2/-	2/-	2/-	2/-

(Signed) J. R. VINCENT.

ESTIMATE FOR EXPENDITURE ON SCIENTIFIC OFFICER AND STAFF
FOR 5 YEARS FROM 1918 TO 1922.

FOR SOUTH INDIA.

	1918.	1922.
	Rs.	Rs.
SALARIES—		
Mycologist Rs. 500—1,000 ...	6,000	12,000
2 Assistants 150—200 ...	1,800	2,400
Writer 30—50 ...	360	600
3 Peons 10 ...	360	400
LABORATORY—		
Building ...	10,000	...
Equipment ...	3,000	...
Upkeep ...	1,000	1,500
Bungalow Rent Rs. 40 ...	480	500
Assistant's quarters ...	5,000	...
Travelling Allowances ...	2,000	2,000
Office Contingencies—Stationery, Post- age, etc. ...	1,000	2,000
Car ...	5,000	...
Total Rs...	36,000	21,400

Cess per acre on 36,000 acres at Re 1 for 1918 and at annas 12 for 1922.

Mundakayam Planters' Association.

Mundakayam,
Travancore,
August 6th, 1917.

Circular letter to Honorary Secretaries of Associations representing rubber acreages.

To
THE HONORARY SECRETARY,

Dear Sir,

At the last meeting (August 4th) of the Mundakayam Planters' Association Scientific Officer Committee, the following resolution was passed:

"That Government be asked through the U. P. A. S. I. if they" "will engage a Mycologist for the study of Rubber diseases in Southern" "India,—salary and other expenditure being met by the Rubber acreages" "in Southern India and that the support of other Rubber Associations be" "asked to this Resolution."

I have been asked by my Association to bring this resolution to your notice with the request that you will kindly place it before your Association for their consideration.

My Association is aware that the Government of Madras will eventually appoint a Mycologist for the planting community, but, as this officer will have to deal with the fungoid diseases of Coffee and Tea, as well as of Rubber, and as, to do this, he will have to travel enormous distances, it is expected that he will have so much other work to do as to prevent him from being of much, or any, real benefit to rubber planters.

My Association conceives that there is ample work for a whole time Mycologist in the investigation of fungoid diseases peculiar to Rubber, and in the devising of means for curtailing their action and preventing their spread.

Mr. Anstead, Deputy Director of Agriculture, Planting Districts, and Mr. McRae, the Government Mycologist attached to the Coimbatore Agricultural College, have both been consulted, and they are fully of opinion that a trained specialist is necessary.

In this connection, I herewith enclose a copy of a letter from Mr. Anstead to Mr. J. S. Nicolls on the subject, and trust you will find that it explains the question sufficiently to promote discussion and obtain the support of your Association.

As soon as you can learn the views of your Association, will you kindly let me know if we may expect its support.

Yours faithfully,

J. R. VINCENT,
Chairman, M. P. A.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 34.]

AUGUST 25, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Twenty-fourth Annual General Meeting.

CHAIRMAN ...	...	MR. J. S. NICOLLS.
PLANTING MEMBER OF COUNCIL ...	...	THE HON'BLE MR. E. F. BARBER.
VICE-CHAIRMEN ...	...	{ MR. P. G. TIPPING. MR. C. E. ABBOTT.
DEPUTY DIRECTOR OF AGRICULTURE, PLANTING DISTRICTS ...	...	MR. R. D. ANSTEAD, M.A.
DIRECTOR, LABOUR DEPARTMENT...	...	MR. A. FF. MARTIN.
SECRETARY, U. P. A. S. I. ...	...	MR. F. NORTON.

Delegates.

Anamalai P. A.	...	Messrs. C. FRASER & C. R. T. CONGREVE.
Bababudin P. A.	...	Mr. S. H. DENNIS.
Central Travancore P. A.	...	Messrs. J. A. RICHARDSON & D. McARTHUR.
Coorg P. A.	...	Messrs. E. L. MAHON & P. G. TIPPING.
Kanan Devan P. A.	...	Messrs. H. L. PINCHES, A. J. WRIGHT & W. A. LEE.
Mundakayam P. A.	...	Mr. J. J. MURPHY.
Nilgiri P. A.	...	Messrs. A. S. DANDISON & J. B. LESLIE ROGERS.
North Mysore P. A.	...	Mr. C. H. GODFREY.
Shevaroy P. A.	...	MR. V. TRAVERS-DRAPES.
South Mysore P. A.	...	MESSRS. C. LAKE, C. J. HAYWARD & F. M. HAMILTON.
South Travancore P. A.	...	Messrs. J. B. COOK & C. HALL.
Wynaad P. A.	...	Messrs. C. E. ABBOTT, B. MALCOLM & R. AINSWORTH.
West Coast P. A.	...	Mr. R. LESCHER.

Visitors.

The Hon'ble Mr. H. V. Cobb, G.S.I., C.I.E., Resident in Mysore.	Mr. L. P. Kent.
Sir M. Visvesvaraya, K.C.I.E., Dewan of Mysore.	Mr. L. H. Bowden, (Ceylon Labour Commissioner.)
Doctor Hope, Sc. Officer, Indian Tea Association.	Mr. H. C. Staples (Chilean Nitrate Propaganda Sub-Delegation.
Mr. G. A. D. Stuart, I.C.S., Director of Agriculture, Madras.	Doctor H. E. Watson, (Indian Insti- tute of Science.)
Mr. R. K. Walker.	Mr. J. V. Saldanha.
Mr. W. McRae, Government My- cologist.	Mr. R. Fowke.
Mr. P. J. Anderson.	Mr. J. S. Scott.
Doctor Leslie Coleman, Director of Agriculture, Mysore Government.	Mr. J. C. Howison (Messrs. Peirce, Leslie & Co., Ltd.)
Mr. G. R. Hilon, Deputy Director of Agriculture, Circles I, II, III.	Mrs. Wetherall.
Mr. J. MacIver.	„ Fowke.
The Rev. D. H. Gillan.	„ Scott
Mr. F. Hannyngton, I.C.S.	„ Watson.
Mr. P. R. Wetherall.	„ Pinches.
Major E. H. C. James, I. A. Assistant Resident.	„ F. M. Hamilton.
Mr. J. G. Hamilton.	„ Abbott.
Mr. W. C. Rose, Agent, Bank of Mysore.	„ R. K. Walker.
Mr. C. F. K. Tacchella, (Indian Insti- tute of Science.)	„ Anstead.
Mr. G. N. Frattini.	„ Lee.
Mr. H. T. Howell (Messrs. Stanes & Co., Ltd.)	Miss Bayliss.
	Mrs. Wright
	„ Fraser.
	„ Congreve.
	„ Malcolm.
	„ Martin.
	„ Tipping.
	Miss Mahon.

AGENDA.

1. Secretary's Annual Report and Statement of Accounts.
2. Chairman's Address.
3. Report of Labour Director.
4. Report of Deputy Director of Agriculture, Planting Districts.
5. Work of Planting Member of Council.
6. Agricultural Matters:—
 - (a) Lectures by Messrs. McRae and Anstead.
 - (b) Pests and Diseases.
 - (c) Fertilisers.
 - (d) Rubber Growers' Association.
 - (e) Programme of Deputy Director of Agriculture, Planting Districts, 1917-18.
 - (f) Re-organisation Scheme of Scientific Department and Experiment Stations.
 - (g) Analytical Branch of Scientific Department.
 - (h) Appointment of a Mycologist for Rubber Industry.
 - (i) Price of Paddy and Rice in Coffee Districts.
 - (j) Improvement of the quality of Tea.

7. Roads and Communications :—

- (a) Hassan-Mangalore Railway.
- (b) Cochin Harbour.
- (c) Anamalai Ghat Road.

8. Legislation :—

- (a) Export Duty on Tea.
 - (b) Equivalent Import Duty on Ceylon Tea imported into India.
 - (c) Ceylon Tea Brokers' Association's action in restricting the sale of South Indian Tea on the Colombo Market.
 - (d) Imperial Preference for the Indian Tea Trade.
 - (e) Form of Contract for sale of Coffee in India.
 - (f) Fixing by Government of a Minimum Rate of Sale for Havre Standard Coffee in India.
 - (g) Military Coffee Ration.
 - (h) Imperial Preference for the Indian Coffee Trade.
 - (i) Prohibition of Coffee export to United Kingdom.
 - (j) Tea Allotments.
 - (k) Land Tenure and Title Deeds in Mysore.
 - (l) Act XIII of 1859.
9. Shipping Freight and Tonnage.
10. British Empire Producers' Organisation.
11. Indian Trade Commissioner in London.
12. Fire Insurance on Tea Factories.
13. Planters' Chronicle.
14. Planters' Benevolent Fund.
15. Planters' War Fund.
- 16. Finance :—**
- (a) Budget, 1917-1918.
 - (b) Financing the Planting Industry.
17. Labour and Labour Department.
18. Indian Defence Force.
19. Election of Office-Bearers for 1917-1918.

COMMITTEES.

Committee A.—General Committee of all Delegates.

Subjects—9 Shipping Freights and Tonnage.

- 16 (b) Financing the Planting Industry.
- 9 (j) Tea Allotments.
- 10 British Empire Producers' Organisation.
- 13 Planters' Chronicle.
- 14 Planters' Benevolent Fund.
- 15 Planters' War Fund.
- 12 Fire Insurance on Tea Factories.
- 11 Indian Trade Commissioner in London.
- 7 (a to c) Roads and Communications.
- 17 Labour. Act XIII.
- 16 (a) Budget 1917-18.

Committee B.—Agricultural Matters.

Subjects—6 (a to j.)

Chairman.—Mr. J. A. Richardson.

Mr. C. E. Abbott.	Mr. R. Lescher.
Mr. R. D. Anstead.	Mr. J. J. Murphy.
Mr. C. Fraser.	Mr. W. A. Lee.
Mr. G. R. T. Congreve.	Mr. P. G. Tipping.
Mr. Leslie Rogers.	Mr. A. C. Morrell.
Mr. C. Lake.	Mr. D. McArthur.
Dr. D. G. Hope.	Mr. G. A. D. Stuart, I. C. S.

Committee C.—Legislation Matters.

Subject—8 and Indian Defence Force.

Chairman.—Mr. B. Malcolm.

Mr. R. Ainsworth.	Mr. R. Lescher.
Mr. C. Fraser.	Mr. H. L. Pinches.
Mr. C. R. T. Congreve.	Mr. E. L. Mahon.
Mr. J. B. Cook.	Mr. A. S. Dandison.
Mr. S. H. Dennis.	Mr. A. J. Wright.
Mr. C. H. Godfrey.	Mr. F. M. Hamilton.
Mr. C. J. Hayward.	

Committee D.—Labour Department.

All Subscribers.

Subject—17.

Chairman.—Mr. F. M. Hamilton.

Mr. C. E. Abbott.	Mr. B. Malcolm.
Mr. C. R. T. Congreve.	Mr. H. L. Pinches.
Mr. A. S. Dandison.	Mr. J. A. Richardson.
Mr. R. Lescher.	Mr. Travers-Drapes.
Mr. C. Lake.	Mr. A. Ff. Martin.
Mr. J. G. Hamilton.	

NOTE.—*The Chairman and Planting Member will be members of all Committees.*

PROGRAMME.

MONDAY, 20TH AUGUST, 11 A.M.

General Committee Meeting, U. P. A. S. I.
Appointment of Committees.
Accounts.

2-30 P.M.

Secretary's Annual Report.
Chairman's Address.
Report of Labour Director.
Report of Deputy Director of Agriculture, Planting Districts.
Report of Planting Member of Council.

TUESDAY, 10 A.M. - 1 P.M.

Meeting of Committee A.

2 P.M. - 4 P.M.

Meeting of Committee B. & C.

WEDNESDAY, 10 A.M.

Lectures by—

Mr. W. McRae, M.A., Government Mycologist.

Abnormal Leaf Fall of Hevea Rubber.

Mr. R. D. Anstead, M.A., Deputy Director of Agriculture, Planting Districts.

Estate Treatment of Fungoid Diseases.

General Discussion.

Fertilisers—

Fertiliser Act.

Dr. G. D. Hope, I. T. A.

Pests and Diseases.

2 P. M.—4 P.M.

Meeting of Committee C.

THURSDAY, 10 A.M.—1 P.M.

Meeting of Committee A.

2 P.M.—4 P.M.

Meeting of Committee D.

FRIDAY, 10 A.M.—4 P.M.

General Meeting of U. P. A. S. I.

The Secretary's Annual Report.

Gentlemen,—We have just passed the anniversary of the third year of this awful war, though with prospects of a definite victory, brighter and more hopeful than hitherto.

I have to report that since last year 24 more planters have joined His Majesty's Forces, making in all 226 who have done so from our small community. A book containing their names is before each member. Those who have been killed since last year are:—

R. D. Lovett enlisted 16th Batt. (Public Schools) Middlesex Regiment, killed in France 1st July, 1916.

R. F. Hiley, Lieut.-Surgeon, Mesopotamia, returned to India—Died.

G. D. Pechell, Lieut., Flying Corps, killed.

G. W. Church, M. C., The Buffs, France, Missing believed killed.

C. G. Lechler, 2nd Lieut., I. A. R. O., Mesopotamia, died at Base Hospital at Basra of Para typhoid fever.

P. A. Thompson, 2nd Lieut., I. A. R. O., killed in Gallipoli.

J. H. S. Jameson, Lieut., 7th Seaforth Highlanders, killed in action.

I also regret to report the deaths of Messrs. E. A. Hughes, J. A. Harris, and C. Hendry—all of whom have lent their talents to your deliberations.

Notwithstanding the War the past year has been of increased activity, though one of anxiety and trial to all the Industries which are affiliated to and represented by this Association. The two chief causes have been acute financial difficulties and want of tonnage. To meet the former a meeting was held in Madras at the end of May, which was largely representative and

well attended by planters, Coast Firms, Bankers, and members of Mercantile Firms. At this meeting resolutions were passed, and placed before the Government of Madras, asking for financial aid on a minimum basis of the aid required by planters to carry on their Estates. These Resolutions were passed on to the Government of India and the Madras Government have been in correspondence with the Bank of Madras with a view to ascertain the extent to which the Banks can render assistance. The Secretary to the Government of Madras informed me that "no further action on the part of Government is possible pending the receipt of definite information as to the amount of financial aid which the planters are likely to require, and as to the extent to which their Banks will be able to help them." Forms have been issued to be filled in with detailed statements which will be placed before Government, and on that information it will decide the question of Financial Assistance. On yourselves solely depends the measure of help that you will receive.

During the past year, His Excellency the Governor of Madras has twice made tours and seen for himself the enormous importance of the community to the State. He has set a precedent which I trust will be followed by his successors. He has expressed great interest and sympathy with us, and it behoves you not to allow that interest to lapse. You can best do so by meeting the Government by furnishing them with all necessary information they ask you for, whereby they can come to your financial assistance.

Tonnage has been scarce and freight enormously increased. I can see no immediate remedy for this. The Controller of Shipping is the master of the situation, and only by convincing him of your necessities can you expect to have sufficient tonnage placed at your disposal.

Every planting industry has received the keen personal attention of the Chairman and Council.

The year has been an immensely busy one as regards planting politics. Besides the Financial Meeting held in May, three Committee Meetings of the Local Branch of the Rubber Growers' Association were held. At the meeting at Cochin several hundred acres of Rubber were placed at the disposal of Messrs. Anstead and McRae for continued experiment on abnormal leaf fall and at Calicut Mr. Marsden, Scientific Research Officer, Ceylon, gave a most interesting lecture--mostly on the Manufacture of Rubber. The latest list of the Local Branch of the Rubber Growers' Association shows 44,471 acres which do not include native holdings which amount to some 8,000 acres.

Two Scientific Committee Meetings were held, one in Bangalore and one in Calicut.

There was also held at Calicut a "Tea Export" Meeting at which important resolutions were passed dealing with tea estimates and allotments, which have been forwarded to the Collector of Customs, Madras.

A Meeting was held in Madras to protest against the resolution of the import of Coffee into the United Kingdom. As is now known the Government of India sanctioned the export of 6,200 tons as from the 23rd February, but it was only on 28th June that the Home Government sanctioned the import of that amount. Mr. Brooke Mockett our representative on the British Empire Producers' Organisation wrote me on the 20th June when the news arrived in England that the Government of India had sanctioned the export of 6,150 tons, it was news to all of them in England "for every lot

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 35.] SEPTEMBER 1, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

We are only able to publish a portion of the Chairman's address at the Annual General Meeting of the United Planters' Association this year. The rest will appear next week.

We publish a full account of the Proceedings of the Annual General Meeting of the Kanan Devan Planters' Association. Also the report of Second Quarterly General Meeting of the Central Travancore Planters' Association.

Our article on Markets, Prices and Statistics appears as usual.

We trust that every Tea Planter will read the following letter which reached the Secretary, U. P. A. S. I. yesterday, from the Secretary Madras Homeward Freight Conference.

Dear Sir,—I have to inform you that the Madras Homeward Freight Conference have now received authority to accept Tea for shipment to the U. K. There will be two steamers loading on the Malabar Coast and at Tuticorin towards the end of September, the S. S. "Clan Gordon" for Liverpool and "Worsley Hall" for London and applications for space should be made to their respective agents at Cochin. I would however remark that the space available for Tea will be limited and Shippers are not likely to get their full requirements shipped by these two steamers, as the space will have to be divided between them proportionately. I may also mention that the Madras Conference are now also prepared to accept Tea for shipment from Madras by the S.S. "Clan Malcolm," which will probably sail hence about 12th proximo for Liverpool and Glasgow.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	62,831	8	2
Mr. B. Malcolm	...	...	600	0	0
Mr. W. West	...	...	30	0	0
Mr. N. G. Hartley	...	...	75	0	0
Mr. E. E. Eyre	...	...	100	0	0
Messrs. Volkart Brothers	...	...	2,000	0	0
Messrs. Barber & Pascoe	...	...	75	0	0
Mr. H. Waddington	...	...	30	0	0
Total Rs...			65,741	8	2

The Chairman's Address at the recent U.P.A.S.I. Meeting.

Mr. J. S. Nicolls said :—

GENTLEMEN,—You have heard your Secretary's Report and he has gone very fully into the work of last year and left me little to say.

I can only wish that the honoured position I have held as your Chairman, one which I had always hoped to attain to, had fallen in less turbulent times. I have done my best to help to solve the many important matters that have come before me during the past year, and I have not been frightened at or intentionally shirked any of the grave responsibilities my position has carried with it. I feel that there must be some way of lessening the amount of work that the Chairman of the U. P. A. S. I. has to do. I have heard it said in this room that if one wants anything done, the way to get it done is to go to a busy man. If I have done part of that which was given unto me to do fairly well, I shall leave this room with greater confidence in my own abilities than I do at the present moment. When you give your judgment on my work let the sentence be a light one. You may one day be in the same position. Both my predecessors in office must have prayed as I now pray, that it may not fall on my successor to record that "since we last met together in this hall another year of this dreadful war has passed." The war continues in and we seem no nearer to the end, Mr. Browne ending his remarkable speech of last year said :—

"We are living in terrible times. Possibly the worst is before us. We are a determined and united nation and whatever sacrifices have to be made will be made willingly and we are cheered by the knowledge that victory is certain."

Have any of those essentials for victory he then credited us with having departed from us? I for one will not believe they have, but that we will carry them to that only ending of this war he then predicted. Our Secretary in his report has read out the names of those of our community who have gone to fight, not only the avowed enemies of our Empire, but alongside our brave Allies to blot out from this world's sheet that wicked spirit of avarice and greed that led to this dreadful spilling of human blood. Some of those that have gone from our community will never return. Their names will for ever remain honoured with us of to-day and with those that come after, and I hope that I may one day be present at the unveiling of a monument recording the names of those Planters who have given up their lives, as our beloved King in his message to the Lord Mayor of London said. "to secure the sacred principles of justice, freedom and humanity." Most of us here to-day have lost relatives and friends of our youth. Every day brings to us some consequence of the war. I wish I could conscientiously say the worst is past but with confidence I say, discussions at this meeting will show the world that Planters of Southern India are determined to face difficulties and overcome them and that we fully recognise the Empire's full resources must be used in bringing the war to an early termination. None of us could have expected to come through this war unscathed; up to a few months ago our injuries were slight, but since then the position has become much worse. Mr. Browne last year reminded you of Mr. Richardson's warning in his address from the Chair at our annual meeting of 1915. Market conditions, freight, tonnage are matters so closely bound up with finance, that it is a difficult task to consider one apart from the other. Reduced estate expenditure or reduced output of crop might tend to relieve either position. Ceylon has agreed to a reduction by 25 per cent. of its tea output for the next 12 months, and

before doing this it must have considered well the benefits to accrue to itself by doing so. I feel it is my duty to warn every one that the difficulties we have had to face in financing our industries lately, will not get easier in the near future; and it is essential to look at this from the worst aspect, and not to speculate on an improved future. We are living in abnormal times and matters must be considered in that light.

PRODUCTS.

COFFEE AND RELATIVE MATTERS.—Crop during the past year was, I believe, a good one, and in normal times would have gone some way to recompense the planter for the unfavourable position he was placed in by the poor crop of the previous season. The coming crop over the greater part of the Coffee producing area will, I believe, be a poor one. I think it would be unadvisable to talk to Coffee Planters about the price obtained for Home sales. I would rather face rotten eggs at an election. What can only be considered in the one light as "unnecessary obstruction" prevented shipment of coffee from the West Coast when facilities for shipment were available; partial withdrawal of such obstructions at the eleventh hour did not help to improve matters (or should it exonerate anybody who is responsible for the muddle from a severe judgment.) The whole matter was clearly put before the Powers that be, not only by the U. P. A. S. I., but by the Empire Producers' Organisation, Agents and others and to all of them is due a hearty vote of thanks. I would especially refer to Mr. Mockett and Sir John Rees, who have acted for us on the Empire Producers' Organisation. Ample time was given to allow of careful consideration of the whole matter by the Imperial Government, and what would happen to the Coffee industry if prohibition of import into the United Kingdom was not removed before the West Coast ports were closed to shipping has actually happened, resulting in severe financial difficulties and possibly to considerable deterioration in value of the Coffee now stored in this country.

TEA AND RELATIVE MATTERS.—The season was not as favourable as the last for flushing, owing to adverse climate causes during our usual heaviest flushing months. Prices at times rose to an abnormal high level. From the 1st April, 1917, 40 per cent. of each invoice had to be delivered to the distributing Committee formed by the Imperial Government, at 1s. per lb. Tea at 1s. per lb. leaves the producer, with freight at its present high figure, nothing but a bare profit. From the 1st of July a new scheme was framed by Government on a fixed scale of prices. 90 per cent. of each invoice is to be delivered to the distributing Committee. It looks a formidable arrangement, occupying about two columns of a newspaper. Briefly the basis of prices is as follows:—

10 per cent. to be sold in open market.

25 do. do. at 1s. 5d.—1s. 6d.

35 do. do. at 1s. 2d.—1s. 3d.

30 do. do. at 11d.—1s.

Sellers not being permitted to hold for more than the maximum price for each class, and if the minimum is the best offer they must sell. If the best bid is below the minimum the seller may refuse or accept

LIMITATION IN AMOUNT PERMISSIBLE FOR SHIPMENT TO THE UNITED KINGDOM.—This is a matter which has hit the Tea Planter badly. If tonnage is needed for more urgent needs of the Empire, the planters is not going to grumble. A special meeting was held in Calicut on the 26th

June, at which the Acting Collector of Customs, Madras, was present, and a satisfactory arrangement was come to on what basis tea shipping allotment should be framed. Further correspondence on this matter has confirmed the agreement come to and I feel more than satisfied that the Planters of South India are united on this matter. Our restricted export to the United Kingdom may be a blessing in disguise; we have been forced by circumstances to find other markets or to further develop other existing markets. This can only be for the eventual good of the tea industry. We welcomed the action of the Australian Commonwealth Government in excluding for the present all foreign grown teas from importation. On your agenda appear matters concerning your relations with your brother Planters in Ceylon, viz., import of Ceylon Tea into India, and the restriction of sale of South Indian Tea on the Colombo market. They are matters which want careful handling but it seems only reasonable that if you have to pay an Import duty on sales of Indian Tea on the Colombo market, Ceylon should pay the same tax on sales of their tea in Indian markets.

RUBBER.

Prices have not risen in the same way as those of tea; on the whole they have been good, but of late there has been a very rapid fall in value. This may be due to increased Home stocks, and, if so, there may be a recovery later in the year. Indian Rubber Companies, which have got past their babyhood, have paid satisfactory dividends showing that the Rubber investor has little to fear in the future.

CINCHONA.

I do not think this should be considered as gone from Planting enterprise for ever. There is still a good deal of interest taken in its production. On the 20th and 21st December, 1916 at Madras a deputation from the U. P. A. S. I. was received by the Madras Government to try to arrive at some suitable arrangement about furthering the development of Cinchona plantation by private enterprise, so making it unnecessary for Government to plant up large areas to insure a sufficient and continuous supply of quinine. We owe to H. E. Lord Pentland, who presided at the meeting both days, our gratitude for the sympathetic hearing he gave to our representations.

CARDAMOMS.

The crop last year was a fair one, but the demand at Home has been poor.

PEPPER.

The crop was a good one and prices have been very good.

You have a long and important agenda before you, so I do not want to take up more of your time than necessary, and will only touch upon one or two of the more important subjects that are coming up before you during this morning,

SCIENTIFIC DEPARTMENT.

At the meeting last year the Director of Agriculture informed us that the scheme for the re-organisation of the Scientific Department had been definitely accepted by the Government of Madras, subject to the sanction of the Secretary of State, and the whole subject was then pending with the Government of India, and he was still awaiting orders. Very little hope was held out that anything would be done till after the war. Thus in October, 1916, an order of Government was received in which it was stated that the

Government of India have expressed their inability pending the sanction from the Secretary of State to authorise any preliminary expenditure in connection with the scheme for the development of a Scientific Department for the assistance of the Planting Industries of Southern India.

In consequence of this, the preliminary work was dropped. Sites for the first four experiment stations had been agreed upon as far as the districts in which they were to be situated were concerned, and at this the matter was left. In June of this year the Government suddenly announced that a sum of Rs. 17,500 had been provided in this year's Budget for the buildings in the stations, and estimates were called for immediately and urgently. These estimates could not be got out at once, as planters were fully occupied over other matters and the monsoon had set in. However the whole matter was set going again, and Mr. Anstead has visited the proposed sites and settled details as far as possible, and estimates are being prepared, and it is hoped to make a start with buildings after the monsoon. It is a pity that after shelving the matter the Government should re-open it so suddenly. Had we been given any hope of the matter going through this year, all these details would have been got ready. Things are being pushed on as fast as possible, but it takes time to re-open all the negotiations which had been closed for the time being. It is possible, however, that before March next the sites for the experiment station may be definitely surveyed, the leases signed, and the buildings begun.

With regard to the Mycologist for Planting Districts it is suggested that his headquarters might be in Peermade, but Mr. Anstead proposed that we should wait until he is appointed and that his advice should be taken as to the most suitable place for his headquarters, and that he should get out plans for the necessary laboratory, etc. Meanwhile, when he is appointed, his time may be most profitably occupied for a year or more, in making an extended tour of the planting districts and in examination of the fungoid diseases present, and what is already being done to deal with them. During this time he might with advantage have his headquarters at Coimbatore in touch with the laboratories and library there.

On the 5th July, 1917, a Circular No. 37-17 was issued by the U. P. A. S. I. giving information received by your Planting Member from the Government on this matter. It commences in stating that great difficulty is experienced in getting a man, and that the only suitable officer Government could accept is engaged in important investigation under the control of the Government of India. A suggestion is then made to shelve the scheme until the end of the war, but before coming to a decision Government desire to have the views of the U. P. A. S. I. Ceylon seems to be able to get all she wants, as an additional Mycologist arrived there quite lately. I think Government should be asked to give us information as to what steps were taken in trying to procure the services of a Mycologist. It looks as if Government had only approached two men.

The Analytical Branch.—The fees obtained for analyses of soil and fertilisers were insufficient to cover the expenditure at this branch of the Department by Rs. 633-15-5 an improvement on last year, which was Rs. 963-15-8. Increased cost of chemicals must mean increased cost of work. The Analytical Branch is supplying a "want." I do not think the difference between expenditure and fees obtained should be looked at in the light of a "loss."

(To be continued.)

DISTRICT PLANTERS' ASSOCIATIONS.**Kanan Devan Planters' Association.****ANNUAL GENERAL MEETING.**

Proceedings of the Annual General Meeting of the above Association held in the High Range Club, Munnar, on the 14th July, 1917, at 3 p.m.

PRESENT.—Messrs. J. C. Abbott (Chairman), A. H. Dixon, Eric H. Francis, W. F. Inman, D. V. Crowe, Wm. Mackenzie, W. Fraser, A. Blair-Hill, G. W. Cole, G. R. Strachan, A. G. Murray, A. W. Leslie, A. W. John, H. L. Pinches, A. J. Wright, and W. A. Lee. A. W. L. Vernede and S. C. H. Robinson (Honorary Members).

The notice calling the Meeting having been read the Minutes of Bi-Annual General Meeting were read and approved of.

Letters of apology for absence were read from Messrs. Yates and Walker.

THE FOLLOWING AGENDA WAS LAID ON THE TABLE :—

1. Chairman's Speech (embracing Honorary Secretary's Report).
2. Accounts.
3. Election of Delegates to U. P. A. S. I. Meeting at Bangalore.
4. The Maharajah's Shashtiabdapurthi (60th Birthday Memorial).
5. Postal Service between Surianallè and Devicolam Post Offices.
6. Weights and Measures.
7. Election of Office-Bearers.

Before proceeding to business the Chairman said—

Gentlemen,—I must refer with deep regret, in which I am sure you all join, to the sudden death of Mr. E. A. Hughes, who has been Honorary Secretary since 1910 and who carried out the duties in a most able manner, leaving little for the Chairman to do. I propose that a letter expressing the sympathy and condolence of this Association should be addressed to Mr. Hughes' near relatives. This vote was passed in silence—Members standing.

Since the last Annual Meeting we have lost several Members. Mr. C. Fraser, who was our Chairman for some years, left for the Annamallais, and Mr. A. H. Gerrard has gone to Peermade. We wish them success in their new districts.

Several more of the younger men have lately joined the I. A. R. O., and we are consequently rather short-handed and likely to be more so soon, when men will probably be called up under the Indian Defence Force Act. I feel sure, however, that those who remain will willingly undertake any extra work that may be involved.

I much regret to say that Mr. P. Fraser, who last year joined the Army at Home, is reported to be wounded and missing. Our sympathy is due to his friends though we will yet hope that better news may be heard of him.

We recently had the pleasure of seeing Messrs. Ross and Hayes, who were on leave from Mesopotamia, but have now returned to duty. I hope that when the War is over, which unfortunately yet seems a long way off, all those who joined the Army from this district may return to it. They will be assured of a very cordial welcome.

As we have no Honorary Secretary I will now combine the Chairman's remarks with what should have been the Honorary Secretary's report.

GENERAL PLANTING MATTERS.

SHIPPING DIFFICULTIES AND FREIGHTS.—This question came up during the year when your Committee decided that the U. P. A. S. I. was not the right body to meet the shippers as we, in our opinion, have not, as planters, sufficient knowledge or the means of obtaining special information to deal successfully with so intricate a business. It was then suggested that a combine of Managing Agents of South Indian Tea interests should be formed on the lines of the Indian Tea Association who could approach the Shipping Companies with greater knowledge of such matters.

With regard to the restriction of tea exports a Meeting was held at Calicut on 26th June which was well attended, our district being represented by Mr. H. L. Pinches. Several Resolutions were carried, as recorded in the papers, and it was arranged that allotments should be made to individual Estates and not to Shipping Agents, so that all might be placed on the same footing. District Committees were appointed to pass the estimates, the allotting to be done by the U. P. A. S. I.

Messrs. Pinches, Lee and Leslie were appointed as the Kanan Devan Committee.

PROHIBITION OF COFFEE IMPORT INTO THE UNITED KINGDOM.—This came as a great blow to Coffee Planters who hoped by their last crop to make up for two previous bad ones, and small returns. The matter was vigorously taken up by Messrs. Gilkison and Brooke Mockett at Home, and by the Hon'ble Mr. E. F. Barber and the Chairman U. P. A. S. I. in India. Some concession was then made by Government inasmuch as crop despatched from Estates before the 23rd of February was allowed to be shipped, but this did not greatly help some Estates where crop ripened very late, and where little had been got away by that date. Subsequently it was announced that the Home Government agreed to allow import of half coffee crop on basis of total crops, but as the West Coast Ports had closed in the meanwhile, and no tonnage is available elsewhere the position remains practically the same. The local demand is small and there are no other considerable outlets, consequently a large amount of crop remains unsold and is likely to deteriorate if kept much longer.

TRAVANCORE TEA EXPORT DUTY.—As you are aware the question of the double duty (Travancore and British) has been satisfactorily settled as between Madras and Travancore Governments.

Exemption of duty on Travancore Teas for consumption in British India has also been granted. The latter arrangement came into force as from the 21st February and a refund of the duty levied on these teas prior to that date has been sanctioned.

Our thanks for the prompt manner in which our representations were met in this connection were conveyed to the Dewan, and through him to His Highness' Government, by our Delegate, Mr. A. J. Wright, at the last Sri Mullam Popular Assembly.

FINANCE.—Owing to the limitation of Council Bills added to the Export difficulties many planters have great difficulty in financing their Estates and the position is very serious. The matter however has been taken up by those who understand the question and a Meeting was held in Madras when various Resolutions were proposed by Mr. Ainsworth and others, and it is to be hoped that some solution of the difficulty may be found.

SCIENTIFIC DEPARTMENT.—The Government of India having expressed inability (pending receipt of sanction from Secretary of State) to authorise any preliminary expenditure in connection with the scheme for the development of a Scientific Department for the assistance of Planting Industries in South India, it was suggested that a start might be made by the U. P. A. S. I. Government had no objection to planters undertaking this, but said it must be clearly understood that they did so at their own risk. Under these circumstances your Committee were of opinion that the U. P. A. S. I. could not help with the preliminary arrangements further than the sum previously agreed upon, and as Government at present could not otherwise proceed with the scheme the matter should be left over until times are more normal. Mr. Chadwick, I.C.S., who took a keen interest in this scheme and who always was in sympathy with planters has, we learn, been appointed Permanent Indian Trade Commissioner and we congratulate him on his appointment.

SRI MULLAM POPULAR ASSEMBLY.—Mr. Wright represented our Association and was successful in obtaining a promise that our wishes in regard to the Game Laws would receive sympathetic consideration. He also brought up the question of the Mankulam Road, and condition of the ferry boat for conveying loaded carts across the Periyar River. The Dewan said that these matters should have the best consideration of Government.

At the previous year's Meeting our Delegate brought up the question of the pecuniary jurisdiction of the Devicolam Munsiff. You will be glad to learn that Government is to amend the Regulation and invest the Magistrate in our district with jurisdiction up to Rs. 5,000.

TRAVANCORE COMBINED PLANTERS' ASSOCIATION.—Mr. Wright again represented us and we congratulate him on the honour of his being elected Vice-Chairman of that Association for this year.

MR. ANSTEAD'S VISIT.—The Deputy-Director of Agriculture visited our district in March, and before leaving gave a most interesting lecture, which was fully reported in "*Planters' Chronicle*." The Meeting was well attended, 31 being present.

RULES OF THE ASSOCIATION were amended during the year and copies of the new rules duly circulated to Members.

S. I. P. B. FUND.—During the past year Rs. 220 was remitted to Secretary, U. P. A. S. I., on this account. I trust that this very deserving object will receive further and continued support.

S. I. P. W. FUND.—Rs. 655 was remitted through the late Honorary Secretary, to Secretary, U. P. A. S. I., for above Fund. In addition to this, I am aware that several Members sent their contributions direct. We have many calls on us at present, but I trust that all who can afford will continue to support this Fund.

LADY AMPHILL NURSING INSTITUTE.—We give an annual subscription of Rs. 100 to this Institute. As we have not had an Honorary Secretary lately, I have remitted this money on K. D. P. A. account.

ROADS AND COMMUNICATIONS.—The usual grant from Madura District Board of Rs. 750 for the up-keep of the Bodi-Metu Ghaut Road was received during the season, and has been handed to Mr. Leslie, Surianallè.

MEDICAL GRANT FROM GOVERNMENT.—Our thanks are due to Government for the Grant-in-aid to three Dispensaries, which have been regularly paid.

ACCOUNTS have been made up to the end of May and audited by Mr. R. Brown. There is a credit balance of Rs. 1,060-7-5 and the Annual Subscriptions and Cess are now due to be collected.

MEETINGS.—During the year, four Committee Meetings, one Sub-Committee (to amend Association Rules) Bi-Annual Meeting and Extraordinary General Meeting, the latter to meet Mr. Anstead, were held.

ACREAGE.—The areas now under cultivation are as follows:—

Tea	...	...	...	20,377 acres.
Coffee	...	...	...	927 "
Cardamom	...	...	...	1,387 "
Rubber	...	...	...	798 "
Cinchona	...	...	...	385 "

Some extensions of tea continue to be made.

TEA CROPS.—The Tea Crop harvested for 1916 was 9,230,612 lbst from the various interests, average=478'84 all over. This drop on the previous season is principally accounted for by the long spell of drough. experienced early in the year.

Tea on other Estates is only in partial bearing, so no figures are given.

PRICES.—Final figures are not available as a number of sales have still to be advised, but although the previous year's average is likely to be exceeded, the increase of freight, short crop and restricted shipping facilities have to be reckoned with in anticipating profits.

2. ACCOUNTS.—The Chairman proposed that the Accounts and Balance Sheet as now before the Meeting be approved and adopted—*Carried unanimously.*

A vote of thanks to Mr. Robert Brown for having kindly audited the Association's Books was proposed by Mr. A. J. Wright, seconded by Mr. A. W. John and *carried unanimously.*

3. DELEGATES TO U. P. A. S. I. ANNUAL MEETING.—Proposed from the Chair and unanimously carried that Messrs. Pinches and Lee be appointed to represent the Association at the Bangalore Meeting. As Mr. A. J. Wright was to be in Bangalore at the time of the Meeting he was also elected by the Association as a third representative.

4. THE MAHARAJAH'S SHASHTIABDAPURTHI (60TH BIRTHDAY MEMORIAL).—The Chairman said he was glad to see Mr. Robinson, the Commissioner, present who could doubtless give us full information as to what the intention was with regard to the proposed Memorial. Mr. Robinson briefly addressed the Meeting giving particulars as to the nature the proposed Memorial was likely to take and how subscriptions and donations were to be remitted. Three of our Members had already been appointed to the General Committee who were organizing the movement.

After general discussion the following Resolution was proposed by Mr. H. L. Pinches, seconded by Mr. A. W. John and *carried unanimously*:—

"That the Members of the Association already proposed as Members of the General Committee serve as a Sub-Committee to collect subscriptions and make arrangements for celebrating the occasion of His Highness' Shashtiabdapurthi. This Sub-Committee to have power to add to their number."

5. POSTAL SERVICE BETWEEN SURIANALLE AND DEVICOLAM.—Mr. Hawkins proposed, and Mr. Leslie seconded, that the Postmaster-General be again approached with regard to this postal service over which an additional tappal runner was required. The Chairman pointed out that the

matter had been brought up last year and that, in light of the reply then received to our application, he felt the question should be allowed to stand over until times were more normal. Mr. Hawkins however wished the Resolution voted on. On doing so the suggestion made from the Chair became the finding of the Meeting.

6. WEIGHTS and MEASURES.—Mr. A. J. Wright proposed the following Resolution:—

"This Association respectfully requests His Highness' Government to declare British standard measures authorised under Section 4 of the Weights and Measures Regulation VI of 1085 for use in the Devicolum Taluk in view of the facts that all purchases have to be made in British Indian markets and that the population served by the traders is almost entirely composed of British Indian subjects. The "Edangali" standard does not lend itself to conversion from the British Standard and it is feared that any change will lead to considerable difficulties and hardships for the migratory population of the Estates," and in continuation said—

This district is so situated that all supplies are drawn exclusively from British India, and a further, and even more important, point is that the population is almost entirely composed of British Indian subjects and is a migratory one in addition to that. They have been accustomed to the British standard measures all their lives. It needs little imagination to depict their difficulties if compelled to have their dealings governed by an entirely different standard of measures which bear no relation to their old ones. It is in our own interests, to put it on no higher grounds, to do our utmost to see that our labour force, upon which so much depends, is not placed in a position laying them open to unprincipled exploitation. That such would promptly result every one versed in the ways of the petty trader will readily admit.

In requesting Government to meet us in this matter we are not acting without precedent as the original Regulation itself authorises a dry measure used in Nanjanad entirely different from that used in other parts of the State, and that further exceptions of the kind were contemplated is shown by Section 4 which enacts that Government may declare the magnitude and denomination of measures and weights other than the standard units though they do not form integral multiples or sub-multiples of the units authorised under the Regulation.

We seem to have an excellent case, and if, as I trust it will, the Resolution now before you finds a seconder and is accorded your support, I would further propose in view of the urgency and importance of the matter that the Honorary Secretary be authorised to communicate with Government by wire without loss of time.

The Resolution was seconded by Mr. H. L. Pinches and *unanimously carried.*

7. ELECTION OF OFFICE BEARERS.—Mr. Abbott on resigning the Chair thanked the Members for the support extended to him during the season now closed, and for the kindly sympathy shown him during the time he had been in rather indifferent health. He much regretted that owing to his illness he had been prevented from attending the various Meetings as regularly as he would have wished.

The other Members of the Executive having resigned, Mr. H. L. Pinches was temporarily voted to the Chair.

Mr. Pinches in proposing a hearty vote of thanks to the retiring Chairman said how much they all appreciated the work Mr. Abbott had done for the Association, and for the very full and interesting address he had given them that day in reviewing the business transactions over the past season. They all regretted he had made up his mind not to stand for re-election but from what Mr. Abbott had told the Committee he assured Members that it would be useless for them to press the matter and vote for Mr. Abbott now.

Election of Office-Bearers for the ensuing year was then proceeded with.

Mr. William A. Lee was elected Chairman and thanked the Members for the honour done him in electing him as their Chairman for the coming season. He felt the Association could have done better in choosing otherwise, and in putting one of their number into the position who was more conversant with the business of the Association, but with their support and forbearance he would do his very best to fulfil the duties of the Chair.

Mr. G. R. Strachan was elected Honorary Secretary and in a few words expressed his thanks to Members. He assured them he would do all he could to carry out the duties of Honorary Secretary and to promote the welfare of the Association.

The ballot for Members of Committee resulted in the election of the following gentlemen:—

Messrs. J. C. Abbott, A. W. Leslie, J. M. Bridgman, A. J. Wright and H. L. Pinches.

A vote of thanks to the Chair terminated the Proceedings.

(Signed) J. C. ABBOTT,
Chairman.

Central Travancore Planters' Association.

The Second Quarterly General Meeting of the above Association was held at the Medical Fund Bungalow, Peermade, on the 11th August, 1917 at 10 a.m.

PRESENT—Messrs. J. S. Wilkie (Chairman), J. A. Richardson, W. F. Stephen (Honorary Secretary), H. C. Westaway, Dr. McCormack, W. A. J. Milner, A. H. Gerrard, C. A. Mackenzie, R. Tait, and by proxy W. A. Asher.

1. Minutes of last Meeting were read and confirmed.
2. **SCIENTIFIC DEPARTMENT.**—Mr. Richardson kindly consented to get an estimate for the Farm Manager's Bungalow on the proposed experimental station and to forward same to Mr. Anstead before the Annual Meeting at Bangalore on the 20th instant. It was thought in reference to the decision arrived at, at the Meeting held in July last year that part of the Hope Estate the Property of the Stagbrook Tea and Rubber Company would be the most suitable place for the plot as it could be fixed at the extreme end of the Estate where there is grass land adjoining, suitable for buildings, and water and the main road close by, but the final decision was left to the Directors of the above Company.
3. **ELECTION OF NEW MEMBERS.**—Mr. J. A. Richardson said: I have been authorised to make a statement here this morning which I am sure will be met with general satisfaction by all, and that is, that the Travancore Tea Estates Co., Ltd., have decided to join the Association.

Towards the close of the Meeting a letter was received from Mr. McArthur confirming this. The Travancore Tea Estate Co. were accordingly elected members of the Association.

4. DELEGATES FOR THE U. P. A. S. I. ANNUAL MEETING AT BANGALORE.—Resolved that Mr. J. A. Richardson, and Mr. D. McArthur represent the Association. —Carried.

5. H. H. THE MAHARAJA'S BIRTHDAY.—It was resolved that Estates subscribe individually and send their subscriptions to the Central Control Committee, Trivandrum, and it is to be hoped it will be well supported, and the Honorary Secretary was asked to advise the Mundakayam Association accordingly.

6. DOUBLE EXPORT DUTY ON TEA.—In regard to the delay in recovering the Travancore Duty, this was due to the Export receipts being in the hands of the British Customs for the recovery of their share of the double duty; this has now been recovered by the Coast Agents which will enable them to forward the receipts to Trivandrum for the recovery of the Travancore portion. Proposed by Mr. Westaway and seconded by Mr. Stephen that Mr. Richardson and the Coast Firms be thanked for the trouble they have taken in the matter of recovering the money.

7. INSURANCE RATES.—It was agreed that Members send details to the Honorary Secretary to be passed on to our Delegate at the Annual Meeting of the U. P. A. S. I.

8. HEAD SIRKAR VAKIL'S FEES.—Agreed that the Honorary Secretary be asked to write to Government endorsing the resolution passed at the Mundakayam Association Meeting on the 14th July 1917 which was to the effect that "In view of the fact of the Head Sirkar Vakil being in receipt of a salary from the Government, the Association does not think it right or necessary for private parties to pay fees for work such as described unless the Head Sirkar Vakil is called in on their behalf by private parties entering into contracts with Government."

9. CORRESPONDENCE.—Read letters from Mundakayam Association dated the 2nd August 1917, and letter No. 40/17 from the Secretary U. P. A. S. I. dated the 30th July 1917.

Resolved that this Association strongly opposes the proposed amplification of the resolution No. 5 passed at the Calicut Tea Export Meeting and our Delegates were instructed accordingly.

10. PRESENT TO RECRUITING AGENT.—Proposed by Mr. Mackenzie, seconded by Mr. Milner that our Delegates be instructed to bring before the Labour Control Committee the subject of Indian Agents being allowed to accept presents.—Carried.

DELEGATES EXPENSES TO ATTEND THE ANNUAL MEETING AT BANGALORE. —Agreed that a sum of Rs. 200 be paid each Delegate.

With a vote of thanks to the Chairman proposed by Mr. Milner and seconded by Mr. Stephen the Meeting was brought to a close.

(Signed) J. S. WILKIE,

Chairman.

(") W. F. STEPHEN,

Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.

Coffee.

Offerings in auction have been:—

	20th June 3rd July.	Total since 1st Jan.	Last year.
East India	3,633	18,141	25,719
Costa Rica	2,694	63,043	82,980
Other Milds	300	31,257	55,163
Brazil	1,554	66,857	56,379
Robusta	Nil.	689	1,041
B. E. A.	17	4,415	7,369
Uganda	31	10,875	

The small quantity offered during the fortnight ending 4th July met with a very slow demand and much was bought in, but where sales were made the prices were generally steady.

Owing to the delay in mails it is some time since a Market Report has been received from home, but in Messrs T. H. Allen & Co's. Report, dated 4th July just received they say on the question of prohibition "It is a little difficult to know exactly what has been happening. The Indian mail of 23rd May brought confirmation of the previously cabled advices that the Indian Government had authorised the *shipment* of 50% of the total crop, but apparently the *landing* had not been sanctioned by the Home Government, as it was only on the 26th June that the Board of Trade informed us that the "Clan Cameron" Coffee would be released, and it was not until three days later that we got licences for the "Namur" and "Nellore" shipments which arrived six weeks ago."

"As regards Africaus, the Coffee per "Hypatia," on which bonds had been given, has been released and some further shipments have been authorised, but no public announcement as to future arrangements has been made."

"A good deal of sound Coffee has been landed from the "Clan Sutherland" but the sorting of it is a slow process and only a few parcels have as yet become available."

The following prices were obtained for South India Coffee in the home market.

	No. 1.	No. 2.	No. 3.	P.B.	T.	Average.
MYSORE.						
Chininhalli ...	72. 91/6	24. 88/-	...	8. 98/-	8. 82/-	...
Buskull ...	60. 88/-	12. 85/-	2. 78/-	10. 96/-	5. 81/-	87/10
Hooli Hundloo ...	57. 88/6	28. 86/-	4. 80/6	11. 98/-	8. 82/6	88/1
Ootsey ...	30. N.	16. 82/-	3. 77/-	8. 92/-	...	...
Cannon M. ...	61. N.	29. 95/6	2. 85/6	7. 111/-	11. 85/6	...
Cannon B. ...	37. N.	27. N.	8. N.	5. N.	2. 83/6	...
Netrokul ...	28. 89/-	16. 84/-	1. 76/-	8. 93/-	4. 75/6	87/-
Kathlekan ...	95. N.	31. N.	1. 81/-	15. 95/-	9. 80/-	...
Nuggar ...	20. 89/-	12. 84/6	1. 77/-	4. 96/-	2. 79/6	87/11
Macdougalls ...	79. N.	52. 82/-	10. 78/-	15. N.	16. 77/-	...

—	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
TRAVANCORE.						
Devacolam ...	29. N.	39. 84/6	14. 81/-	3. 93/6	1. 78/-	...
Talliar ...	29. 87/-	29. 85/-	9. 82/-	7. 93/-	4. 79/-	86/6
Cattamunnar ...	7. 87/-	14. 84/6	4. 79/6	1. 93/6	1. 75/-	85/10
Seetagundy ...	60. N.	17. N.	1. N.	6. N.	10. N.	...
ANAMALLAI.						
Stanmore ...	100. N.	107. 84/6	35. 82/-	18. 92/-	22. 79/-	...
Valparai ...	127. N.	96. 85/7	20. 84/-	24. N.	13. 80/6	...
WYNAAD.						
Mayfield ...	58. N.	62. 83/6	3. 77/6	11. 90/-	12. 77/6	...
NILGIRIS.						
Glenvans ...	29. 91/-	60. 87/-	4. 82/-	3. 94/-	6. 82/-	86/7
Ruby ...	68. 89/6	22. 85/6	1. 76/-	4. 94/6	6. 81/-	88/2

Tea.

The following is taken from the *Madras Mail* of 28th August:—

Rather curiously, says the *Times* City Editor in mail week, although the various measures of control introduced in the tea trade during the past three months have their origin in a resolve to reduce the prices to consumers, it is not the cheapest teas which are now in the greatest demand at the Indian sales. On Monday a certain amount of the lowest priced descriptions were withdrawn, because even the minimum prices were not in all cases bid, and at the Ceylon sales a considerable quantity of both the "A" class (sold wholesale at a minimum of 11*d.* per lb. and a maximum of 1*s.* per lb.) and of the "B" class (sold at 1*s.* 2*d.* and 1*s.* per lb.) were withdrawn for the same reason. The withdrawals were especially notable in the case of the leafy grades, which may probably be attributed partly to the fact that more labour is required to deal with these than with the broken descriptions and partly to prejudice. In normal times the leafy grades were largely allocated for re-exportation and consequently the Home trade is less accustomed to dealing with them. Also, whether there is justification for it or not, the view seems to be widely held in the trade that retailers as a body throughout the country did not do their utmost to advance the sale of the 40 per cent. controlled tea, but that they were disposed to encourage their customers to buy the more expensive teas, and that this habit now remains with housewives. However that may be, there is now the keenest demand for the better descriptions, especially for "D" class, for which there are no fixed prices at present. About 1*s.* 8*d.* per lb. is being bid for the "D" Ceylon tea and 1*s.* 9*d.* for the Indian tea, which means that with the addition of the duty and distributing charges the tea will be sold in distant parts of the country at about 2*s.* 6*d.* or 4*s.* a lb. or more. Irish buyers remain very keen bidders of these descriptions and seem quite undeterred by the price as long as they can secure the best qualities. The coolness now being generally shown towards the lower grades is surprising to dealers because the wholesale tea trade is convinced that unless far more tonnage can be allotted to tea in the immediate future the time is not far distant when housewives will consider themselves fortunate if they are able to secure sufficient supplies of even the lowest grades.

R. D. A.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 36.]

SEPTEMBER 8, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Director of the Labour Department has asked us to notify that "Subscribers of the Labour Department are informed that the Director went on circuit on the 4th instant and is not expected to return to Headquarters till the middle of October. Correspondence addressed to his Bangalore address will be forwarded to him."

Concluded in this issue is the Chairman's address at the Annual General Meeting.

We publish a Memo. of the Resolutions passed at the Annual General Meeting which fills three pages, which are forwarded to the various officials and bodies to whom they apply.

Our weekly article on Markets, Prices and Statistics appears and fills two pages.

In our correspondence columns will be found a letter to the Chairman U. P. A. S. I. from Sir Francis Spring, Chairman of the Harbour Trust Madras, which is of such importance that he has expressed a wish to have it widely circulated by means of the *Chronicle*. We strongly recommend those planters who wish to avail themselves of the offer should apply at once to the Harbour Trust for a schedule of the Scale of Rates. We would draw special attention to the last two lines of Sir Francis' letter.

Very important were the discussions on Tonnage and Freight and Export. at the recent U.P.A.S.I. Meeting, so we have no hesitation in publishing Mr. Mahon's letter to the Secretary, U.P.A.S.I. Considering how South India Coffee planters have been, and are being, handicapped the treatment of East African Coffee is most invidious and unjust. The matter has been at once placed before the Chairman who will take immediate necessary action.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	65,741	8	2
Mr. A. Yates	...	...	100	0	0
Mr. A. J. Wright	...	...	20	0	0
Mr. Campbell Hunt	...	...	30	0	0
Mr. Aylmer Ff. Martin	...	...	75	0	0
Total Rs...			65,966	8	2

The Chairman's Address at the recent U.P.A.S.I. Meeting.*(Continued).***RUBBER GROWERS' ASSOCIATION.**

During the past year three Committee meetings of the Local Branch of this Association were held, and at the Calicut meeting we were at last able to welcome Mr. Marsden, Scientific Research Officer of Ceylon, who gave a most interesting lecture on rubber manufacture.

The Association continues its good work. It is powerfully constituted and welcomes and aids every plantation in the East. I hold it necessary if not the bounden duty of every rubber property in Southern India to join it. Research work, as we all know, is vital to our industries, and from the R. G. A. emanates a fund of valuable information to the rubber planter. It is not right that one property should stand out thereby benefiting, probably unconsciously or indirectly, from the efforts of a near subscriber,

EMPIRE PRODUCERS' ORGANISATION.

This organisation, to which we have affiliated ourselves during this year, is very influentially represented on its Council from all parts of the Empire. The Prime Minister of Australia is the President. I cannot do better than quote the objects for which it was formed:—

(a) To promote and foster production, manufacture and trade throughout the British Empire with a view to rendering it self-supporting.

(b) To represent the views of the organisation to the respective Parliaments, Governments and other public bodies of the various parts of the British Empire.

(c) To insure that each industry shall formulate its own fiscal policy subject to the following condition—that wherever the introduction of import or export duties is demanded by any particular industry such duties shall embrace the principles laid down in the resolutions passed at the Paris Conference, and shall secure Empire Preference, differentiating further between Allied, neutral and enemy countries,

(d) To collect and circulate statistics and other information relating to production, manufacture, trade and commerce.

(e) To take steps for improvement of the technical knowledge of persons engaged in the producing and manufacturing industries.

f) To do all such other things as are in the opinion of the organisation necessary, proper or advisable for the advancement generally of the interest of the organisation, or which are incidental or conducive to the attainment of any of the above subjects.

To its influence and that of the Madras Government exerted in our interests is largely due the removal of the embargo on East India coffee lying in bond and the sanction of the Board of Trade to the export of East India coffee to the United Kingdom. The organisation is now exerting itself in favour of the removal of the restriction on tea export to the United Kingdom with I cannot but hope, the same beneficent results as that attained for coffee. I consider this Organisation worthy of your support, and to your further consideration the subscription commensurate with our standing as an Association. The following is from the General Secretary's letter of the 23rd March, 1917, to the Secretary of the United Planters' Association of S. India:—

"You will note that I enclose among other literature a copy of our Constitution and Rules, from which you will see that members of the Council, pay an annual subscription of 10 guineas but that there is no fixed subscription for an Association. This is decided by agreement on

some suitable basis. I may mention that the various Sugar Associations throughout the Empire have joined us on a basis of a penny per ton on their output. In the case of the indigo section a somewhat different basis was arranged. They pay so much per maund on their output and give a donation. As your Association, I understand, represents rubber, coffee, tea and other industries you may perhaps wish to suggest some other basis. I should be glad to have your views in regard to this."

S. I. PLANTERS' BENEVOLENT FUND.

The subscriptions received, *viz.*, Rs. 1,955, compare poorly with that of Rs. 3,000 received during the previous year. I have little doubt that the mover of the resolution amending Rule IX (c) at our annual meeting of last year expected an increased subscription. Gentlemen, I am not begging, and it is hard to give when one has not the wherewithal to give with. But I do hope planters will not forget the existence of this fund and that Honorary Secretaries of affiliated Associations will do their best to influence subscriptions to it. The subscriptions this year only exceeded the assistance granted by Rs. 919-7. It is fortunate we had not more calls on our benevolence. Owing to depreciation written off Government paper, our credit balance is less than it would otherwise have been.

S. I. PLANTERS' WAR FUND.

This Fund has passed through its second year. During its first year, subscriptions and donations amounted to Rs. 41,965-0-9, and this year it has only reached Rs. 19,383-14-3, less than half. I am glad to see the promoter of this Fund here to-day; the credit of its birth is his, and the nurturing of it he left with his brother planters. We should not be found wanting.

FINANCING PLANTING INDUSTRIES.

A meeting fully representative of planting interests was held at the Connemara Hotel in Madras on the 30th and 31st May, 1917, to consider the present financial difficulties of planters and to place them before the Government with a view to secure their help in the present situation.

As a means of obtaining relief, the following suggestions were put before Government:—

(1) The Council Bill allotment might be raised above Rs. 120 lakhs per week, or

(2) A certain amount of Council Bills might be ear-marked for estate requirements, or

(3) The Government might make advance to Exchange Banks for the purpose of purchasing Estate Bills.

(4) One and two rupee currency notes might be issued at once.

As there seemed to be a considerable variance in opinions as to the amount of financial assistance required, a Committee was formed with the following powers:—

"To go carefully into the necessary estate requirements and be empowered to interview the banks as to how far they can meet the situation and any other subject in this connection."

The resolutions and Committee's report, after being signed by members of the Committee and subjected to the approval of the U. P. A. S. I., were duly forwarded to Government; in the meanwhile, copies of both had been sent to the Government officials present at the meeting.

The following reply has been received from the Acting Secretary to the Government of Madras, Revenue Department:—

With reference to your letters, dated the 27th June, 1917, and 26th July, 1917, on the subject of the financial difficulties of the planters, I am directed to inform you that the resolution passed at the meeting held in

Madras on the 30th May, 1917, has been communicated to the Government of India, and that this Government have been in correspondence with the Bank of Madras with a view to ascertain the extent to which the Banks can render assistance. No further action on the part of Government is possible pending the receipt of definite information as to the amount of financial aid which the planters are likely to require, and as to the extent to which their Banks will be able to help them. It is understood that a systematic enquiry on these subjects is being organized among planters. On learning its results, the Government will be prepared to consider whether any steps are necessary and feasible to assist the planting community to tide over the present crisis."

The Government of Madras are evidently unable to fall in with the suggestions put before them by the Madras meeting, and any assistance that can be given will have to be either direct from Government to Planters or through the Presidency Bank. With a view of being in a position to give Government necessary statements regarding any individual financial help wanted, a form has been issued by the U. P. A. S. I. which, if correctly filled in, will give Government the information it requires. This matter is on your agenda and a strong Committee must be formed to sift matters. I feel certain the result will be such a one as will enable Government to give immediate financial aid when required.

LABOUR DEPARTMENT.

The Labour Department has completed its third year. Your Director has fully dealt with matters concerning the working of the Department and the thanks of the subscribers are due to him and his subordinates for the unceasing energy they have maintained in your interests. During the year, 1,742,29 acres have joined the Department, bringing up the total acreage now subscribing to 103,408'79 acres. There was one Committee meeting held, to which District Associations were asked to send delegates. I do not think it was an unqualified success. Each of the delegates came with some small grievance, no constructive evidence was brought forward that would help to increase or further the utility of the Department. The present financial position of the Planting industries is such that the Department in the interests of its subscribers must husband its resources and only such expenditure as is necessary to maintain its efficiency must be considered.

With the consent of the Control Committee Mr. Martin has accepted a seat on the "Provincial Recruiting Board" organized by Government. It is adding more to Mr. Martin's already great labours. He will be in a position to see that Planting interests do not clash with Government requirements. Are there now going to be any longer non-subscribers to the "Labour Department" amongst the Planting community?

Gentlemen, the year's accounts have been in your hands a week before the date of this meeting, and I feel certain you will join me in congratulating your Secretary and the Director of the Labour Department on having completed their final accounts in such time that permitted your Auditors, Messrs. Fraser and Ross, to finish their audit at an early enough date to allow the Councillors time to thoroughly examine the accounts before coming to this meeting. The actual expenditure was Rs. 1,138-10-1 over the estimated expenditure as budgetted for but as this included Rs. 500 chargeable to the Labour Department for audit fee the actual excess is Rs. 1,638-10-1.

The actual Revenue is Rs. 543-9-4 less than that appearing in the Budget. This is due to Rs. 500 for Labour Department audit fees which being charged direct to that Department account is not recoverable.

The excess in expenditure over estimate is due to the following:—

Telegrams ...	...	...	186	14	0
Committee Meetings ...	...	...	656	0	9
Manurial experiments not estimated for	...	...	509	6	0
Coffee Import Prohibition	...	...	360	10	0

Total Rs... 1,712 14 9

all unforeseen expenditure when the Budget was framed, but which provision should be made for in the Budget for 1917-1918.

H. E. Lord Pentland continued his tours of Planting Districts on the 19th October, 1916, visiting the Anamalais, and on the 15th May, 1917, visiting the Wynaad District. A full report of his meetings with Planters in those districts have appeared in the *Madras Mail*. His Excellency was warmly welcomed by the Planters of both districts, who fully recognize that only from such visits can His Excellency gain that knowledge of planting conditions necessary to judge our needs and wants, and I feel certain the Madras Government will aid us in overcoming the temporary difficulties we are now faced with.

I now come to that part of my address which concerns me alone, and it is to thank all those whom I may have worried during the year. My sincere thanks are due to the Hon'ble Mr. Barber for the great help he has been to me during my year of office. He has not spared himself in your interests, and until I had the pleasure of working with him I had no idea, and I fancy few of you here to-day have what a great part of his time is given up in working for the interests of his brother Planters. To the Councillors, those representatives of the several Committee meetings found necessary to call during the year are due my thanks for their co-operation in helping me to decide the many urgent matters that have come before me this year. To the members of the U. P. A. S. I. staff, Mr. Martin, Mr. Anstead and to your Secretary, Mr. Norton, my thanks are due for their loyal support and the help they have been to me in my work of the past years. The Secretarial work of the U. P. A. S. I. has been very heavy, and I fear it will not decrease anyhow till some time after the end of this war. The U. P. A. S. I. is a much more important body than it was two years ago, and an increased revenue will further its utility. Non-subscribers to the U. P. A. S. I., can but acknowledge that its interests are their interests and recognise the great benefits such a body has been to them this year. I feel confident that it means a great increase in the subscribing acreage to the U. P. A. S. I. You will all join me in congratulating Mr. Norton in the way he has coped with the increased work and so satisfactorily dealt with.

The *Madras Mail*.—Words fail me in trying to express my thanks and the thanks of the U. P. A. S. I. for the interest it has taken in Planting matters. It worried me a few months ago and I thought—resulting in my subscribing to the *Madras Mail*.

We are glad to welcome at this meeting the Hon'ble Mr. Cobb, British Resident in Mysore, and Chief Commissioner of Coorg. In him I feel the coffee Planters in those districts have a true and sympathetic friend, and we are also glad to see the Dewan of Mysore and our other visitors.

We have to regret the death of three well-known planters and our sincere sympathies and condolences we tender to their relatives.

MEMO. OF RESOLUTIONS PASSED AT ANNUAL MEETING, U. P. A. S. I.

FERTILISERS.

I. That the efforts of the Indian Tea Association to have a Fertiliser Act brought into law, be supported by this Association.—*Carried unanimously.*

RE-ORGANISATION SCHEME OF SCIENTIFIC DEPARTMENT AND EXPERIMENT STATIONS.

II. That Messrs. Anstead, Richardson and Tipping be appointed a Sub-Committee to discuss the questions of lease of building and other matters in connection with the experimental stations.—*Carried.*

PLANTING MYCOLOGIST.

IIA. That in the opinion of this Association, the initial headquarters of the Mycologist for the Planting Districts should be at Coimbatore to afford him facilities to conduct his work to the best advantage until such time, as the best site for a permanent station has been decided upon.—*Carried unanimously.*

APPOINTMENT OF A MYCOLOGIST FOR RUBBER INDUSTRY.

III. (1) That Government be asked through the U. P. A. S. I. if they will engage a Mycologist for the study of Rubber diseases in S. India, salary and other expenses being met by the Rubber acreage in S. India, and that the support of the other Associations be asked to the resolution.

(2) That in the event of other Rubber Associations not approving of the scheme, the U. P. A. S. I. be asked if they will engage a Mycologist for Mundakayam only, at that District's expense.—*Carried unanimously.*

HASSAN-MANGALORE RAILWAY.

IV. That this Association after considering the report of Mr. Richards, the late Engineer-in-Chief, Mysore and West Coast Railway Survey, is of the opinion that the Hassan-Mangalore Railway project demands more attention and regrets that the planters' opinions have received so little consideration.—*Carried unanimously.*

COCHIN HARBOUR.

V. That we re-affirm the resolution passed at the 1915 Meeting and that this Association welcomes the statement of His Excellency Lord Pentland at Meppadi that the subject of the Cochin Harbour has the support of the Madras Government.—*Carried unanimously.*

ANAMALAI GHAT ROAD.

VI. That the attention of Government be again invited to the bad state of the main road in the Anamalais and be requested to take the necessary steps to repair it and keep it in proper order.—*Carried unanimously.*

AN APPRECIATION.

VIA. That the Coorg Planters' Association wishes to place on record its appreciation of the manner that their Local Government have endeavoured to push forward all matters connected with the furthering of the present railway project into the Province, in conjunction with the scheme now contemplated by the Mysore Durbar. Resolved that this appreciation be recorded.—*Carried unanimously.*

TEA IMPORTS INTO INDIA.

VII. That the Government be respectfully requested to take the necessary steps to prevent the importing of all outside Tea into India, as the increasing Indian consumption will afford some measure of relief in the position caused by war conditions and the present restriction of exports.—*Carried unanimously.*

IMPERIAL PREFERENCE FOR TEA AND COFFEE.

VIII.—That this Association re-affirms its adherence to an Imperial Preferential Tariff for both British grown Tea and Coffee, particularly at this crisis when the Dominions and the Mother Country are uniting to the Common Cause and recommends that the Government of India be asked to agree to and negotiate through the Secretary of State for the following as regards coffee.

(1) To permit export of 1917/18 crop to the United Kingdom.

(2) The total prohibition of other than British grown coffee into India, East Africa, Aden, Mesopotamia (including Persia).

(3) To prohibit the export of all Coffee from the United Kingdom to countries East of Port Said.

(4) Also for the prohibition of import of Coffee other than British grown coffee into Australia, Ceylon, the Straits Settlements, and South Africa.—*Carried unanimously.*

FORM OF CONTRACT.

IX. That the U. P. A. S. I. do take the necessary steps to have a Legal Form of Contract for use in 'Forward Sales' of coffee in India drawn up; the draft of same to be submitted to a Sub-Committee consisting of Messrs. Mahon, Congreve, and Godfrey and to all curers with a view to safeguarding the interests of producers and buyers.—*Carried unanimously.*

GOVERNMENT PURCHASE OF EXISTING STOCKS OF COFFEE.

X. That the Government of India be approached with a view to their purchasing the stock of coffee now remaining in the country if tonnage is not available.—*Carried unanimously.*

PROHIBITION OF COFFEE EXPORT TO UNITED KINGDOM.

XI. That this Association draw the attention of the Madras Government to the fact that out of the quantity of 6,150 tons of Coffee licensed for entry into the U. K., space has been provided for 3,300 only; that to all intents and purposes a complete embargo on coffee shipment exists at present and requests Government to arrange with the Shipping Controller for space for the balance of last year's crop up to the licensed quantity, and that application be made for a further license to import the whole or part of this year's crop.—*Carried unanimously.*

LAND TENURE AND TITLE DEEDS IN MYSORE.

XII. That this Association do strongly support the Mysore Coffee Planters on their representations to the Mysore Durbar on

(1) The hardships of Durbar's ruling in the question of granting lands on permanent tenure.

(2) The difficulties of getting title deeds for lands purchased from Indian holders.

(3) The hardship of paying back assessment in *one* sum at 8 annas per acre per annum on lands originally granted on 30 years' tenure which are now wanted on permanent tenure.—*Carried unanimously.*

ACT XIII OF 1859,

XIII. That the U. P. A. S. I. strongly protests against the question of amending Act XIII being brought up at this time, when, owing to the War, the planting industry is already heavily handicapped, but considers that as advances cannot be abolished, a penal law is necessary in those cases where the persons advanced have no property and little scruple in evading contracted obligations and no difficulty in evading them. It is therefore of opinion that Act XIII is necessary, and that punishment by imprisonment for disobeying the order of the Court must be retained. It has no knowledge of any abuse of the Act on the part of Managers of Estates or their Maistries, but to avoid abuse of its provisions by petty landholders and others, if such occur, considers that the Act might be amended:—

- (i) that cognisance should not be taken of any contract that is not in writing
- (ii) or for a period exceeding one year
- (iii) and that repayment of the amount due should stay any proceedings taken by a Court under the Act.—*Carried unanimously.*

SHIPPING FREIGHT AND TONNAGE.

XIV. That though this Association is aware that the statement recently made in Parliament by Mr. Montagu as to the question of export of tea and rubber from Tuticorin and Malabar Ports not having been put before the Government of India does not appear to be in accordance with actual facts, and though it appreciates the efforts made by the Government of Madras on behalf of the planting community, it is of opinion that the interests of the community cannot be receiving the attention they deserve from the Government of India and the Ministry of Shipping, and respectfully requests the Government of Madras to receive a deputation at a very early date from the United Planters' Association of Southern India with reference to tonnage from Madras, Tuticorin and Malabar Ports, for tea, coffee and rubber to the United Kingdom.—*Carried unanimously.*

BRITISH EMPIRE PRODUCERS' ORGANISATION.

XV. That this Association recommends the formation of a London South Indian Planting Association affiliated to the U. P. A. S. I. to look after our interests at home and that the following gentlemen be asked to form themselves into a Committee to organise the scheme with power to add to their number:

Messrs. H. M. Knight, G. L. Acworth, Geo. Romilly, O. A. Bannatine H. P. Hodgson and Brooke Mockett.—*Carried unanimously.*

INDIAN TRADE COMMISSIONER IN LONDON.

XVI. That it is advisable at once to enter into correspondence with the Indian Trade Commissioner in England with a view to securing his assistance in developing our industries now and after the end of the War.—*Carried unanimously.*

FIRE INSURANCE ON TEA FACTORIES.

XVII. That this Association request the Madras Insurance Association to revise the classification of Tea Factory risks under the Madras Tariff and to reduce rates to the level of rates under the Ceylon Tariff. The present difference in cost having no justification.—*Carried unanimously.*

PLANTERS' WAR FUND.

XVIII. That this Fund be again brought to the notice of our men now in His Majesty's Forces.—*Carried unanimously.*

BUDGET, 1917-1918.

XIXA. That the matter of increasing the Secretarial Staff be considered during the year.—*Carried unanimously.*

XIXB. That the question of moving the offices of this Association to Madras be considered by District Associations during the current year.—*Carried unanimously.*

FINANCING THE PLANTING INDUSTRY.

XXA. That this Meeting urges Government to adopt the third resolution passed at the Madras Finance Meeting, reading 'That Government should make advances to Exchange Banks for the purpose of purchasing Estate Bills'; and further requests Government to arrange for financial assistance, in the shape of direct assistance, for such Estates as do not desire to receive that assistance, through the Banks.—*Lost.*

AMENDMENT.

XXB. That in view of further information which has come to light since the finance meeting in May last at Madras, this meeting do leave the settlement of the finance difficulties of Planters to the Government of Madras on the advice of the Conference, which the Government of Madras will call as soon as full information regarding planting requirements has been given.—*Carried.*

XXC. That this Association do adopt and accept the Finance requirement form already sent out and do endeavour to meet as fully as possible the wishes of the Government of Madras on this matter.

Further that this Association shall consider any one who does not fill in and render this form as not requiring financial assistance through the help of Government.—*Carried.*

LABOUR DEPARTMENT.

XXIA. That the Labour Director's Annual Report and detailed copy of Accounts showing the amount spent by each Division and the area served by each be sent to one subscriber to be elected by the Planters' Association of his District and that a copy of the yearly estimate be also sent when available.—*Carried unanimously.*

XXIB. That the Director, Deputy Director and Control Committee with power to add to their number be asked to prepare a scheme of re-organisation of the Labour Department on a basis of a subscription of approximately Re. 1 per acre.—*Carried unanimously.*

INDIAN DEFENCE FORCE.

XXII. That Government and the Military authorities be asked to confer with the Planters' Association of South India regarding the application of the Indian Defence Force Act to Planting Districts firstly with a view to ensuring that the assistance obtained from the Planting Community is as efficient as possible from a military point of view and secondly to put a stop to the unnecessary hardships and expenses at present caused to Planters and also the unnecessary disorganisation of Planting business.—*Carried unanimously.*

MARKETS, PRICES, AND STATISTICS.

Coffee.

Monthly statistics to 30th June.

		1917.	1916.
EAST INDIA—		Tons.	Tons.
Landed to 30th June	... ..	1,721	1,990
Delivered to 30th June	... ..	855	1,734
Stock on 30th June	... ..	1,633	1,642

COFFEE OF ALL KINDS—

Stock in United Kingdom on 30th June	... ..	49,100	33,518
Total European Imports to 30th June	... ..	111,480	203,465
Total European Deliveries to 30th June	... ..	142,885	202,415
Total European Stock on 30th June	... ..	194,060	207,355
World's Visible Supply	... ..	456,530*	416,765

*A decrease of 21,550 tons compared with a decrease of 40,705 tons last year.

COMPARATIVE FIGURES ON 30TH JUNE.

Year.	Total Brazil Crop tons.	World's Visible Supply tons.	Year's Deliveries Europe & U. S. A. tons.	Stock in Europe and U. S. A. tons.	Futures Current Month.	Rio Ex- change.	Milreis price.
1917...	712,530	456,530	811,470	345,820	49/6	23½	4,600
1916...	882,000	416,765	958,120	322,650	46/-	12 7/16	6,600
1915...	755,650	442,590	1,112,350	364,115	39/-	12½	4,700
1914...	812,705	665,705	1,131,880	563,060	41/10½	16 1/16	5,000
1913...	675,590	605,175	1,024,115	490,295	44/-	16½	5,050

Offerings in auction have been:—

	4—17 July.	Total since 1st Jan.	Last year.
East India	4,487	22,628	25,719
Costa Rica	5,009	68,052	86,073
Other Milds	4,220	35,477	56,305
Brazil	19	66,876	59,279
Robusta	35	724	1,351
B. E. A.	555	4,970	7,369
Kilimanjaro	456	—	
Uganda	353	11,228	

Writing in their Weekly Report dated 18th July, Messrs. T. H. Allan & Co. say "The market has become very dull. Home traders, the only buyers we can look to at present, seem to be filled up and at the moment they are afraid of the unexpectedly large supplies. The greater part of the "Clan Sutherland" cargo having been landed in fair condition, and further shipments having been allowed from India and East Africa, and there being now talk of further shipments from Brazil."

The following prices have been obtained for South Indian Coffee:—

—	No. 1.	No. 2.	No. 3.	P.B.	T.	Average.
MYSORE.						
Elliot's ...	71. N.	46. 84/6	11. N.	11. 95/-	3. 80/-	...
Granite Hill ...	8. N.	6. N.	2. 73/6	2. 81/-	2. 71/6	...
Chetenhulli ...	70. N.	47. 84/-	10. N.	22. 98/-	12. 81/6	...
Handi ...	37. 87/6	11. 84/-	1. 79/-	4. 96/6	1. 76/.	87/1
Kullmoodie ...	142. N.	39. N.	...	...	...	...
Utollalu ...	48. N.	39. N.	5. 77/-	12. 89/-	11. N.	...
Dataypore ...	32. 87/-	17. 82/6	3. 76/-	5. 90/-	4. 76/-	84/8
Hirvati ...	2. 79/-	9. 77/-	2. 73/6	1. 84/-	4. 72/-	76/-
COORG.						
Bramagberry ...	22. N.	26. N.	...	3. 86/6	9. 76/-	...
NILGIRIS.						
Glenburn ...	25. 86/-	14. N.	6. N.	9. N.	3. 71/-	...
Hallacarry ...	32. N.	14. N.	5. 80/-	6. N.	3. 74/-	...
Colacambie ...	49. N.	24. N.	2. 78/-	7. 95/6	7. 80/-	...
Colacambie ...	53. N.	41. N.	2. 79/-	...	9. 78/6	...
Waterfall ...	76. N.	31. N.	2. 78/6	11. 94/6	11. 80/6	...
ANAMALLAIS.						
Valparai ...	77. 85/-	57. 83/-	19. 78/6	15. 95/-	10. 79/-	84/9
NAIDOOBATAM.						
Tulloes ...	19. 91/-	40. 86/6	...	5. 95/6	2. 73/-	...
Helen ...	54. N.	110. N.	...	13. 90/-	4. 73/-	...
Hope ...	42. 92/6	22. 87/-	...	6. 96/6	2. 73/6	...
Suffolk ...	24. N.	43. N.	...	4. 88/-	2. 73/6	...
Barham ...	52. N.	80. N.	...	11. N.	4. 74/6	...
Guynd ...	92. N.	224. N.	...	23. 91/6	8. 75/-	...
Kelly ...	45. N.	77. N.	...	8. 95/6	4. 74/-	...
Sandy Hills ...	45. N.	79. N.	...	10. 88/6	4. 72/-	...

Spices.

CARDAMOMS.—The market is now steady and some buying is going on with the evident intention of holding for a future rise, but there is no general demand,

R. D. A.

CORRESPONDENCE.

Harbour, Madras,

Dated 24th August, 1917.

J. S. Nicolls, Esq.,

Chairman of the Southern India Planters' Association,

Devarashola Tea Estate,

Nellacottah, Nilgiris.

Dear Mr. Nicolls,

I write as Chairman of the Madras Port Trust to you as representative of South Indian planting interests. If I understand right, the planters are in some difficulty in obtaining money on their produce just now, because of lack of shipping. Also I learn that you are in correspondence with, or about to correspond with, Government with a view to the grant to planters of advances adequate for the expenses of the coming season.

2. It has therefore occurred to me that perhaps the Madras Port Trust may be of some help in the matter, by offering to members of your Association the use of its godown facilities, pending shipment. We have splendid pucca godowns and warehouses several acres in extent. Already Government lease some of them for its munitions, leather, clothing, etc., and we are just about to bring into use a new four lakhs worth of as fine double-storey ware-houses as you will find in any port.

3. Trains on the broad and metre gauges come right up to the doors of our godowns, and vessels of the greatest draft frequenting the port lie up at our quays close by.

4. There are more ways than one in which produce awaiting shipment can avail itself of our facilities. For instance:—

(a) Goods can have the use of our sheds, at owners' risk, by simply paying harbour dues, *vide* clause I, (a) and (b) of part I (A) of our scale of Rates.

(b) Owners, or their agents in Madras, can lease a locked section of a godown, they keeping the keys and being responsible. For this class of accommodation, *vide* clause 9 (d) of Part I (A) of the Scale of Rates, we charge Rs. 3-12-0 per 100 sq. ft. per mensem. Goods so stored have also, of course, to pay ordinary "harbour dues" when shipped, as scheduled in Part II of the Scale.

(c) Goods intended for shipment can be definitely placed in the Trust's custody, under clause 1, (c) of Part I (A) of the Scale of Rates.

5. As regards alternative (a), it seems probable that this method would not be deemed by the Bank (or by Government?) as affording sufficient security for a loan. Alternative (b) seems to me to be the ideal method provided the units of locked space which we have to offer for lease to your Association (or to your Madras Agents) are not too extensive, and therefore expensive. It seems to me that method (c) has much in its favour, at all events for a commencement. The Trust would reserve one of its godown compartments for the purpose in view and would hold the goods

therein, until such time as they were formally released under due authority—that is, presumably the joint authority of your Association and the Bank (or whoever had made the advances).

6. It seems to me that method (c) might be best at the start, and that, later, when, or if, the business (that is, the business of estate produce against which advances shall have been made) increases in tonnage sufficiently to justify such a change, method (b) might be adopted, the Port Trust leasing to Government—as it now does to the extent of 31,500 sq. ft. for hides, equipment, &c., (or to your Association?) one or more compartments of its shedding accommodation for the purpose in view.

7. We can correspond later in regard to details if the general idea which I now venture to put forward commends itself to your Association. There is room in the godowns to stack tea and other produce up to a height of 12 or 14 feet. The floors are absolutely dry, cement concrete asphalted over, so there ought to be the minimum of risk of deterioration. The chances of your getting freight space for export to Europe are greater at Madras than at any of the minor ports.

Yours very truly,
(Signed) FRANCIS J. E. SPRING.

Messrs, Matheson & Co., Ltd.,
Pollibetta, Coorg,
5th September, 1917.

THE SECRETARY,

United Planters' Association of Southern India,
South Parade, Bangalore.

Shipment of Coffee.

Dear Sir,—My London Office cabling on the 1st instant gives me the following information:—"Ministry shipping allowing shipment coffee from Mombassa you should protest Government of India against such Preferential treatment, Mathesons," and which I now send on to you with a request that you will kindly take the matter up, not only in our interests, but in those of the whole Planting Community of Southern India, specially at a time, like the present, when we are all trying to procure tonnage to ship away the remainder of last season's crop, for it is obvious from this that East African Coffee is being allowed the full liberty of the London Market.

I am, dear Sir,

Yours faithfully,

(Signed) E. L. MAHON,
Ex-Chairman.

Brazilian newspapers announce that Great Britain has made the importation of Brazilian coffee conditional upon its being conveyed from Brazil on Board the German vessels which have been confiscated by the Brazilian Government. It is expected that any minor difficulties which may arise in this connexion will be satisfactorily adjusted.—*Times Weekly.*

SCIENTIFIC DEPARTMENT U P. A. S. I.

Scale of Fees for analysis in the Bangalore Laboratory.

A.—SOILS.

	Rs.
1. Complete Chemical Analysis, including the available Potash and Phosphoric Acid ... ..	...40
2. Mechanical Analysis ... ..	...10
3. Complete Chemical and Mechanical Analysis ... ..	...50
4. Calcium carbonate and oxide content ... ..	...10

B.—FERTILISERS.

1. Potash in Potassic Fertilisers ... ..	... 8
2. Phosphoric acid, total and citrate soluble, in Phosphatic Fertilisers ... ..	... 8
3. Organic Matter, Insoluble Matter, and Nitrogen in Poonacs, &c. ... ..	... 6
4. Organic Matter, Insoluble Matter, Nitrogen, and Phosphoric acid in Bones, Fish, &c. ... ..	... 8
5. Complete Analysis of Fertilisers such as Composts, Cattle manures, &c. ... ..	...20
6. Complete Analysis of Lime, Limestones, and Slaked Lime ... ..	...10

Half the above rates will be charged to all Members of District Planters' Associations.

For methods of taking samples of Soils and Fertilisers and the quantities to send for analysis see *Planters' Chronicle* Volume X. pages 207 and 216.

All samples for analysis should be sent plainly labelled to "The Planting Expert, 25, South Parade, Bangalore," and should be accompanied by a covering letter giving full information about the sample and the analysis desired according to the above table. Fees should be remitted to "The Secretary of the United Planters' Association of South India, 25, South Parade, Bangalore."

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting." Bangalore.)

VOL. XII. NO. 37.] SEPTEMBER 15, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, reviews the Annual Report of the Indian Tea Association, London, from which is extracted much information useful and interesting to the Tea planters of Southern India.

We publish the speech of the Planting Member of Council, the Hon'ble Mr. E. F. Barber, made at the Annual General Meeting of the United Planters' Association of Southern India.

We also publish the third year's Report of the working of the Labour Department read at the Annual General Meeting by the Director which will be read with interest by those who had not the opportunity of hearing it.

Our weekly article on Markets, Prices and Statistics appears as usual.

At the Annual General Meeting of the Kanan Devan Planters' Association the following donations were made to the South India Planters' Benevolent Fund by the undernoted members of that Association.

				Rs.
Mr. H. L. Pinches	...	...	...	10
Mr. A. W. John	...	...	...	5
Mr. William A. Lee	...	...	...	10
Mr. A. J. Wright	...	...	...	10
Mr. W. Fraser	...	...	...	10
Mr. G. W. Cole	...	...	...	10
Mr. G. R. Strachan	...	...	...	5
Mr. A. G. Murray	...	...	...	10
Mr. A. H. Dixon	...	...	...	5
Mr. A. W. Leslie	...	...	...	10
Mr. S. C. H. Robinson	...	...	...	10
Mr. J. S. Hawkins	...	...	...	5
Mr. J. M. Bridgman	...	...	...	10

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	65,966	8	2
Mr. A. C. Morrell	...	...	25	0	0
Total Rs...			65,991	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

Annual Report, Indian Tea Association, London.

The Report of the General Committee of the Indian Tea Association, London, for the year 1916—17 has just come to hand and is as usual a very interesting document full of information. It contains in a condensed form a summary of the situation with regard to the excess profits duty, freight and restriction of exports, food control, crop restriction, and other abnormalities produced by the war conditions, and it also contains in full the tea control rules now governing the tea markets in London.

All tea planters are now-a-days interested in the local sale of Tea in India and the following account of the work of the Tea Cess Committee will therefore be of interest.

"In his address at the Annual Meeting of the Indian Tea Association, Calcutta, Mr H. H. Newby, the Tea Cess Commissioner for India, reported that the results so far attained were encouraging. He stated that the chief method had been to commence operations in towns with a population of over 100,000, afterwards taking the smaller towns. As he was of opinion that some difficulty would be experienced in getting people to brew tea for themselves, efforts had mainly been devoted by means of advertisements and other attractions to draw people to shops selling liquid tea. The Commissioner has 28 representatives throughout India assisting in the opening up of new shops for the sale of liquid tea, or inducing other traders to take up the sale of it. With the exception of Calcutta, not more than four months has been devoted to any town, and the following list which shows the number of shops in existence before Tea Cess operations commenced and the number added, will give an idea of the progress made in a short time :—

			Number of shops before starting work.	Since opened.
Madras	...	...	239	166
Benares	...	...	5	101
Cawnpore	...	...	17	71
Trichinopoly	...	...	13	37
Lucknow	...	...	11	93
Chittagong	...	...	58	34
Mysore	...	...	32	13
Delhi	...	...	55	103
Total ...			430	618

Mr. Newby states. "The great idea is to make these shops successful, and they are constantly being inspected to make certain that they are using good tea and making it properly.

"As regards Calcutta, when the first census was taken a little more than a year ago, there were 444 shops selling tea; the Tea Cess Campaign has been the means of adding 352, but in January last, when a second census was taken there were 1,124 shops selling tea. It is very satisfactory to note that the Commissioner of Police in Calcutta has given every encouragement to the movement.

"Following up the idea of interesting numbers rather than individuals much work has been done at large mills and factories in the way of selling liquid tea to the employees. Other means employed include the supplying of liquid tea at railway stations, demonstrations and distributions of liquid tea at cattle fairs, exhibitions, and religious gatherings throughout India, cinema entertainments, window displays, etc."

"With regard to the actual consumption of tea in India, it is possible only to estimate this, as no official figures are available. Mr. Newby estimates that it is at least 35 million lbs. per annum, making India the third largest consumer for Indian teas. From various reports received, both private and public, your Committee are of opinion that the possibilities of the propaganda work in India are great, and they are in full agreement with the Tea Cess Committee that the work should be encouraged as much as possible, especially in view of the present restriction of imports of tea into England and the necessity for finding markets which can be supplied direct from Calcutta."

We gather the following statistics from the Report :—

		1st April, to 31st March.	
		1915-16.	1916-17.
Tea exported from Northern India	...	302,625,059	264,389,820
Crop in India awaiting export in April 1917	...	—	55,000,000
			319,389,820
Tea exported from Southern India	...	21,664,078	20,199,260
Imports into the United Kingdom —			
From China	...	—	20,862,190
From East India	...	—	216,369,507
From Ceylon	...	—	110,883,686
From Other Countries	...	—	35,916,984
			384,032,367
Area under Tea in India in acres	...	—	636,215
Production	...	—	371,836,668
Area under tea in Ceylon in acres	...	—	409,000
Production in lbs.	...	—	202,482,959

Distribution of South Indian Tea.

The following figures are taken from the *Report of the General Committee of the Indian Tea Association, London, for 1916-17*, showing the destination of the Tea shipped from South Indian ports, Cochin, Tuticorin, Quilon, Alleppey, and Calicut :—

	1916.	1915.
London	14,190,889	18,460,932
America	3,123,626	1,675,631
Colombo	1,070,861	1,547,878
Indian Ports	395,451	561,922
Asiatic Ports	210,528	91,378
Australia and New Zealand	575	Nil.
Russia	Nil.	9,275
Other Places	Nil.	8,108
Total...	18,991,830	22,355,124

South India Tea transhipped at Colombo was distributed as follows :—

London	...	383,438	322,421
Russia	...	1,169,687	1,210,925
China	...	815,269	500,501
Australia	...	991,459	1,090,715
America	...	877,901	850,464
France	...	2,276	Nil
India	...	39,315	20,133
Africa	...	56,788	101,553
Egypt	...	1,300	Nil
Malta	...	1,620	5,150
Spain	...	Nil	2,500
Japan	...	16,699	Nil
	...	4,335,765	4,104,362

Value of Dadap as a Green Dressing for Tea.

We have frequently pointed out in these pages the advantages to be obtained from the cultivation of green dressings in Tea, especially from the establishment of *Dadap* planted 20 x 20 and frequently lopped, the loppings being dug in when the Tea is forked, or spread as a mulch during the dry weather.

A ton of sun-dried loppings of *Dadap* contains about, 61½ lbs. of Nitrogen, 57 lbs. of Potash, and 14 lbs. of Phosphoric acid, and the loppings when cut contain about 70% of moisture.

In the *Annual Report on the Peradeniya Experiment Station, Ceylon for 1916* it is stated that the two Tea plots under *Dadap* yielded during the year 8518 lbs. and 8131 lbs. of loppings per acre respectively. This is an average of 8325 lbs. of fresh material, or 2498 lbs. sundried. From the above figures we can calculate how much plant food is returned to the soil by means of the green dressing and compare this with the amount usually added as manure by applying the usual mixture of 3 cwts. Lime, 1 cwt. Basic Slag, and 50 lbs. Sulphate of Potash followed by 200 lbs. Groundnut Poonac, 150 lbs. Fish Guano, 50 lbs. Blood Meal, 50 lbs. Bone Meal and 50 lbs. Sulphate Potash, so much favoured in South India. We get the following striking result :—

Lbs. plant food applied per acre.

	As Manure.	As <i>Dadap</i> loppings.
Nitrogen	... 36	68
Potash	... 50	64
Phosphoric Acid	... 43	15

It should be borne in mind that while the Potash and Phosphoric Acid are obtained from the soil by the *Dadap* plant and merely returned to it again, the majority of the Nitrogen is obtained from the air and added to the soil, being a gain of plant food.

It is obvious from the above that by the judicious use of *Dadap* the expensive item of Nitrogen can be largely eliminated from the manure bill, all that it is necessary to apply being lime and basic phosphatic manures.

The plot under *Albizzia* gave 8540 lbs. of fresh loppings and these would contain about 1·2% of Nitrogen so that this plant would add to the soil about 102 lbs. of Nitrogen per acre per annum, but it is as a rule harder to establish and grow than *Dadap*.

In addition to this during the year a great number of leaves fall naturally and these become incorporated with the soil and add Nitrogen to it. The *Dadap* leaves as they fall contain 1·4% of Nitrogen and the *Albizzia* leaves 0·39% of Nitrogen.

RUDOLPH D. ANSTEAD,

Deputy Director of Agriculture, Planting Districts.

ANNUAL MEETING, U. P. A. S. I.

The following is the speech of the Planting Member, the Hon'ble Mr. E. F. Barber at the recent U.P.A.S.I. Meeting:—

Mr. Chairman and Gentlemen,—Since you, Sir, and our Secretary have gone so thoroughly over the ground of activities during the past year I propose to be very brief. But, gentlemen, before touching on any details in connection with our affairs I do want to say a few words about the gentleman who has conducted them for us. Mr. Nicolls has been our Chairman throughout a year which I believe has been by far the most troublous since our Association began and certainly the work required for the proper attention to your affair has been enormous during the last six months. I think I am right in saying that I have been in closer touch with Mr. Nicolls during this time than anyone else here and so I am entitled to speak of his unflagging energy and his attention to your interests. If any mistakes have been made, and I believe there have been surprisingly few, when one considers the amount of detail that has been dealt with, they are none of them due to lack of energy on the part of your Chairman and I trust that this is fully realised by all and will in due course receive its proper appreciation.

There are a few points to which I should like to call your attention which have been only briefly referred to as yet or of which no mention has been made.

At one of the meetings of the Nilgiri Planters' Association the question of Dharkhast rules and the extension and amplification to suit the needs of planting districts was raised. During the course of this year a meeting was held at which the Hon'ble Sir Robert Clegg presided and as a result certain modifications are being considered which, as far as I am aware, meet the views of those districts which it concerns.

I think it should be a policy of this Association to aim for a uniformity of tenure throughout our planting districts as I believe it will be one of the ways that will attract capital to this largely undeveloped country. It is not a simple question, it is full of complexities and any achievement may take years to attain but that is no reason why it should be lost sight of.

It is not often we talk of labour legislation in these days and I believe it is some years since we have had any serious debate on such a subject. Quite recently, however, Act XIII of 1859 has been brought to notice owing to a proposal of amendment which if given effect to will delete the penal clauses, having been brought forward. The general opinion is that such mutilation will render the Act useless to us under existing conditions. I am indebted to one gentleman for expressing the views we hold definitely and clearly, and in his own words they have been forwarded to the Government of Madras. The Indian Tea Association has taken action on the matter and so has the Coorg Planters' Association.

The war has affected any chances there were of immediate construction of railways and the like but there are subjects about which we should not keep silent and I hope that this meeting will again emphasise our needs for a harbour on the West Coast and railways. Not any harbour, not any railways but those which we know we want and which we know will serve us best.

The Chairman has asked me to call attention to the Madras Exhibition which is to be held during next December. We did not shine in our last effort at exhibiting and certainly it is not a thing to be played with. It must be taken seriously with full determination to do our best or left entirely alone. In this case, Gentlemen, I hope you will decide that we must exhibit and that we must combine to make our exhibits and the arranging of them worthy of our industry.

Two matters that will take up a lot of the time of this meeting are the questions of shipping and finance. They overlap to such an extent that it is difficult to discuss them apart yet they must be separated to get a clear view of them. In endeavouring to present your case I have seen more clearly than ever how necessary it is always to have a prompt and clear statement of the case with all details verified before Government can be approached with any measure of success. Everyone must help in this, you cannot rely on your Chairman to do it by himself, he would not have the time and if you look upon it as purely secretarial work, as in a way it is, you must be prepared to increase your permanent staff so as to be ready for emergencies. These subjects have not been before the Government in a definite form for very long and further information is required and I trust this will be forthcoming quickly. I am able to give you the following information which I have had from the Revenue Secretary during the last three days.

Lastly, I am to assure you that the Government fully recognise the difficult financial position in which the planters of Southern India have been placed by conditions arising out of the war and you may be assured that they will give their best and most sympathetic consideration to any suggestions for remedying that position. It will, of course, be readily understood that the Government cannot pledge themselves to action which may be beyond their powers or which the further information which is being collected may show to be inappropriate but they certainly desire to do all they can to assist. In the only case in which direct application from an individual planter for assistance has reached Government orders were sent to the Collector of the District by telegram to make an advance sufficient for the immediate necessities of the case.

Also he has told me that the Government approve of a suggestion that there should be a conference to which planters and bankers will be summoned to advise Government on the whole question of financial assistance to planters. Further, he writes:—

“I am to tell you that the Government of India have authorised us to state that representations have been made to the Secretary of State urging that better tonnage facilities should be granted for the shipments from this Presidency.”

In conclusion, Gentlemen, I would warn you that your debate on the difficult questions before you will be carefully watched by others. Plain speaking may be necessary and will do no harm but intolerance and self-seeking even if overruled by better feeling will not help our case. We seek a solution of our difficulties and this can only be done in a spirit of fair play with each of us giving due consideration to the needs of others and so I would say if any of us have come here with purpose of pressing our own views in self interest in our best interests we should refrain.

LABOUR DEPARTMENT

OF THE

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA
(INCORPORATED).

Report of the Director.

Gentlemen,

I submit my report for the third year's working of the Labour Department.

Income—

The subscribing area at the close of the year			
was	...	...	103,408'79 acres.
			Rs. A. P.
Subscriptions @ Rs. 2 per acre on Tea, Coffee			
and Rubber	...	...	2,01,181 10 0
Subscriptions @ Re. 1 per acre on Cardamoms...			2,729 0 0
			2,03,910 10 0
Subscriptions for 2nd year taken in Account			
3rd year	...	...	194 4 0
Balance due by subscribers :—			
1st year	...	Rs. 1,626	
2nd year	...	„ 14,817	
			16,443 0 0
		Total...	2,20,547 14 0
4th year subscription received in advance	...		159 0 0
			2,20,706 14 0
Deduct 1st and 2nd year's refunds on Carda-			
moms...			2,253 4 0
		Total Income...	2,18,453 10 0
of this, the amount collected was only	...		1,85,361 9 0
			33,092 1 0
leaving the large balance due by subscribers of...			
of which Rs. 9,000 has since been received.			
Interest received from the Bank was	...		963 3 2

Expenditure.—The Estimate sanctioned by the Control Committee for the year's working was Rs.2,21,638.

The sum actually spent including depreciation was Rs.2,10,121, which is less than the Estimate by Rs.11,517.

There was ample room for spending the whole estimate by the establishment of new Indian Agencies, but owing to the War, the financial conditions made it necessary to abandon any expansion in this way, as the new Agencies might any day have to be closed down again. This was unfortunate as it prevented results being obtained to which we all had the right to look forward. There was nevertheless steady progress under most headings during the year with the means previously established, owing to increased experience and efficiency.

Accounts—The audited accounts in your hands show the position on 30th June, 1917.

		Previous year.
<i>Work done</i> —The number of undisposed cases at the end of the previous year was ...	2,766	
The number of instances in which the assistance of the Department was invoked during the year was ...	5,336	4,186
Total ...	8,102	
Finally disposed off during the year ...	4,253	2,403
The number of cases which for various reasons and with the consent of subscribers concerned had to be dropped was ...	116	167
<i>Pendency</i> .—The balance of cases about which correspondence enquiry and action was still in progress at the end of the year was ...	3,733	
<i>Cash Recoveries</i> .—The amount of cash which the Department recovered from defaulters and remitted to subscribers was ...	35,940	27,134
Only about 1/3rd was the result of action in the law court, the remaining 2/3rds being recovered as usual by means of moral suasion, or with the assistance of impromptu panchayats <i>ad hoc</i> .		
The amount that was found to be irrecoverable by any known means was ...	3,835	17,689
The total involved in these cases during the year under review, of which the Department had specific information was Rs. 47,334: during which period Rs. 35,940 was recovered, or 75%, but a small portion of this amount refers to outstandings from the previous year. A further sum of slightly more than half a lakh of rupees was recovered by Maistries and Kanganies owing to the assistance given by the Department.		
<i>Defaulters</i> .—892 defaulters owing Rs. 33,040 agreed to return to the Estates of Subscribers of whom ...	604	
313 owing Rs. 19,164 reached the Estates up to the end of the year ...	Rs. 41,097	
	465	
	Rs. 33,201	
Thus giving subscribers the opportunity of recovering 58% of money that would probably have been bad debts.		
The results under this head would have been better but for the favourable agricultural condition of the country—this year work being available locally and consequently the demands for labour more pressing in the villages than previously.		
<i>Internal Competition</i> .—39 instances were dealt with ...		19
<i>Unfair Competition</i> .—Internal ...	13	
External ...	33	
Total ...	46	52
<i>External Competition</i> .—Only a few cases came to notice, and our interests were not deliberately interfered with, certainly not by the responsible Agencies for oversea recruitment. The emigration of coolies from S. India was checked owing to the restrictions imposed on it by Government under the Indian Defence Force Act. Indentured emigration had been stopped voluntarily by the Colonies concerned before these restrictions were enforced. Ceylon and Malaya got all the coolies they required while complying with the conditions laid down by Government.		

	Previous year.
<i>Information</i> was supplied to Estates about 2,557 Maistries, Kanganies and Labour recruiters. Proper advantage is not taken of the facilities we offer in this respect. Cases have occurred where an advance is given and then information is asked for—this is too late and in one particular instance has led to a big loss to the Estate, and much trouble and expense to the Department without any adequate result.	2,044
<i>Laggards</i> .—1,773 were hurried up	1,899
<i>Assistance</i> to Maistries, Kanganies and Labour Suppliers was given to the number of 1194	1,048
<i>Advice</i> was given to those Estates which applied for it.	
<i>Warrants</i> .—120 Civil warrants and 1,151 Criminal warrants have been served during our official year. It will be interesting to have on record the figures for the 1st year of the operation of G. O. No. 101 of 12th January 1916 of the Madras Government i.e, 1st April 1916 and 31st March, 1917.	83 584

Results were as follows:—

	Total cases.	Satisfactory results.	False names.	Emigrated cases.	Time barred cases.
Coimbatore District...	487	70%	41	40	65
Trichinopoly ...	39	85%	1	3	2
Madura ...	46	78%	—	6	14
Malabar ...	155	78%	7	8	15
Salem ...	90	73%	—	—	—
Ramnad and Tinne- velly ...	3	33%	1	1	—
Bellary ...	17	Nil.	14	3	—
Mysore State ...	336	45%	33	1	9
Kellogal Taluq of Coimbatore District...	148	56%	17	2	2

The great difference between Mysore State and the other districts is that there is nothing in the nature of G. O. No. 101 to help us. It may be usefully compared to Kollegal taluq which is included in our Mysore division; where we had 56% of satisfactory results against 45% in Mysore State. I applied on the 22nd July 1916 to the Government of H. H. the Maharajah of Mysore, for similar assistance; but so far have had no reply. The cases of false names could be further reduced if employers would take pains to give the village names, father's names and addresses correctly of all those whom they employ. I am satisfied that there is a great improvement in this respect since the Department was started.

<i>New Connections</i> .—Systematic and organized search for coolies entirely new to Estate work was made in 3,980 villages.	previous year 2,926
--	---------------------------

The disappointment I expressed last year has this year deepened. Bellary District having been thoroughly examined proved a blank and the division is now closed down. The other Ceded districts held out hopes here and there occasionally, but these have come to very little. The only chance of doing more in these districts would be to redouble our efforts, but this means an increase of expenditure, which in these critical

times would not be justified. Further work under these circumstances in what we call the Madanapalle division will therefore close down on the 15th September by which time arrangements will be made to look after the interests we created in the districts concerned. It can only be hoped that in some future time, when financial and other prospects are brighter, another attempt to exploit that country can again be made.

In the East Coast, controlled from Chingleput, some progress was made. 198 new coolies went to Estates from this division.

Last year I reported that over 1,000 members of the so-called Criminal tribes were introduced into the Anamallai district, and at the time they promised to be a satisfactory addition to the labour force, although it was too soon as I said, to say that they were a permanency. I regret that my hopes proved to be too sanguine, and that nearly all of them left the district before their first year was up. There are now some 40 of them only working.

Advertising.—No opportunity of using the Cinema films to advantage has presented itself. Coloured tin tablets are displayed in third class waiting rooms at all likely stations on the M. & S. M. and S. I. Railways. Their popularity is great if one may judge from the fact that numbers of them have been stolen, and the task of replacing them is a nuisance. General advertising both personal and by distribution of leaflets has been energetically carried out.

Professional Recruiters.—Owing to the activities of the Department little trouble has been experienced from these.

Restriction of advances.—The slight success in some districts which I mentioned last year has been maintained. In some others efforts have been made to cope with the trouble, but there has been no general combination to tackle the matter seriously, which I continue to deplore.

Registration.—The thumb impressions of 1,642 persons were classified and registered, last year 965: total to date 2,607. A Directory of Labour Suppliers, Maistries and Kanganies was issued to subscribers.

Payments.—We are still asked to make payments on behalf of Estates to Maistries and others. If it is a convenience to subscribers we must continue to oblige them, but I object to it for reasons previously given. The Department does not hold itself responsible in the matter—See Circular No. 2 of October 1914.

Warnings.—9 Circulars containing the names of 34 men who should not be advanced by subscribers have been issued during the year. Certain villages have also been proscribed.

In conclusion I again make my sincere acknowledgments to those who have supported and assisted the Department during the year. The Chairman and the other Members of the Control Committee have shared my difficulties and anxieties which have been great. The Planting Member of Council has cheerfully met my demands on his valuable time. The Secretary has worked hard to collect subscriptions, a job which no one envies. Subscribers have shown their readiness to allow for mistakes. For all these kindnesses I am very grateful.

AYLMER FR. MARTIN,

Bangalore,

Director.

17th August, 1917.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Offerings at auction have been:—

—				18—31 July.	Total since 1st Jan.	Last year.
East India	...	...	...	1,357	23,985	26,159
Costa Rica	...	...	...	1,473	69,725	88,460
Other Milds	...	...	...	533	36,010	57,420
Brazil	...	...	...	27	66,902	61,243
Robusta	...	...	...	Nil.	724	1,351
B. E. A.	...	...	...	1	4,971	7,369
Uganda	...	...	...	Nil.	11,228	

The market remains very quiet, but a few enquiries which come along for bought in lots make it appear that buyers would be inclined to go on if they could get some reduction in price, and on 31st July the small supplies offered in auction met with a better demand than prevailed during the week before. Auctions were suspended till 14th August.

The following prices have been obtained for South Indian Coffee:—

—	Extra.	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
MYSORE.							
Olivers K.	...	40. N.	10. N.	1. 75/-	5. N.	9. 74/-	...
ANAMALLAIS.							
Puthutotam	...	57. N.	102. N.	20. N.	...	18. N.	...
Castlecroft	...	60. N.	45. N.	42. N.	...	19. 74/-	...
NILGIRIS.							
Lauriston	...	55. 87/-	94. 83/-	...	10. 95/6	3. 78/-	...
Hope	1. N.	19. N.	26. N.	6. N.	...	1. 75/-	...
Kelly	1. 91/-	28. 85/-	42. 82/6	15. 79/-	...	3. 74/-	...
Guynd	4. 94/-	110. 87/-	160. 83/-	...	...	11. 78/6	...
Gudalur	1. 94/-	36. 88/-	40. 84/6	16. 82/-	...	5. 79/-	...
Lauriston	1. 91/-	12. 86/6	31. 83/-	9. 79/6	...	2. 77/6	...

Spices.

PEPPER.—Market quiet but steady. Fair Tellicherry 11½d.

CARDAMOMS.—Fine kinds are wanted but are scarce.

R. D. A.

SCIENTIFIC DEPARTMENT U P. A. S. I.

Scale of Fees for analysis in the Bangalore Laboratory.

A.—SOILS.

	Rs.
1. Complete Chemical Analysis, including the available Potash and Phosphoric Acid ... ..	...40
2. Mechanical Analysis ... ..	...10
3. Complete Chemical and Mechanical Analysis ... ..	...50
4. Calcium carbonate and oxide content ... ..	...10

B.—FERTILISERS.

1. Potash in Potassic Fertilisers ... ..	... 8
2. Phosphoric acid, total and citrate soluble, in Phosphatic Fertilisers ... ..	... 8
3. Organic Matter, Insoluble Matter, and Nitrogen in Poonacs, &c. ... ..	... 6
4. Organic Matter, Insoluble Matter, Nitrogen, and Phosphoric acid in Bones, Fish, &c. ... ..	... 8
5. Complete Analysis of Fertilisers such as Composts, Cattle manures, &c. ... ..	...20
6. Complete Analysis of Lime, Limestones, and Slaked Lime ... ..	...10

Half the above rates will be charged to all Members of District Planters' Associations.

For methods of taking samples of Soils and Fertilisers and the quantities to send for analysis see *Planters' Chronicle* Volume X. pages 207 and 216.

All samples for analysis should be sent plainly labelled to "The Planting Expert, 25, South Parade, Bangalore," and should be accompanied by a covering letter giving full information about the sample and the analysis desired according to the above table. Fees should be remitted to "The Secretary of the United Planters' Association of South India, 25, South Parade, Bangalore."

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 38.] SEPTEMBER 22, 1917, [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Madras Government are asking for the Financial Requirement Forms. The Secretary U. P. A. will be very much obliged if those who have already received forms will fill them in and send them to him not later than Friday the 28th September, 1917..

The Secretary is in touch with the Madras Homeward Freight Conference and is prepared to give what information he can regarding homeward sailings to those interested on their applying to him, provided they undertake to treat such information as confidential.

We publish the proceedings of a Special General Meeting of the Shevaroy Planters' Association.

We publish the lecture delivered by Mr. Anstead, Deputy Director of Agriculture, Planting Districts, on the Treatment of Fungoid Diseases on Estates, at the last Annual General Meeting.

In our correspondence columns will be found answers to resolutions passed at the Annual General Meeting and a letter from "Coffee" with an enclosure from the Honorary Secretary, Ladies' Depot, Madras.

The Manager, Mercantile Bank of India, Ltd., asks us to inform our readers "that the Directors of the Mercantile Bank of India, Ltd., have declared an interim Dividend on the "A" & "B" Shares for the half year ending 30th June, 1917, at the rate of 6% less tax."

The Collector of Customs, Madras, writes us as regards tea allotments that he will be glad to answer any question within his power if those interested will write to him.

SOUTH INDIA PLANTERS' WAR FUND.

			RS.	A.	P.
Amount previously acknowledged	...	...	65,991	8	2
Mr. W. H. Lincoln	...	...	100	0	0
The Hon'ble Mr. E. F. Barber	...	...	55	0	0
Mr. J. A. Richardson	...	...	35	0	0
Mr. J. McIver	...	...	60	0	0
Mr. D. McArthur	...	...	40	0	0
Mr. R. Lescher	...	...	35	0	0
Mr. S. G. Forbes	...	...	10	0	0
Mr. Fletcher Norton	...	...	5	0	0
Mr. H. Waddington	...	...	30	0	0
Total Rs...			66,361	8	2

DISTRICT PLANTERS' ASSOCIATIONS.

Shevaroy Planters' Association.

*Proceedings of a Special General Meeting held at Victoria Rooms,
Yercaud, on Friday 7th September, 1917.*

PRESENT.—Mrs. Cayley, Messrs. S. Campbell, E. Travers-Drapes, V. Travers-Drapes, R. A. Gilby, R. W. B. Gompertz, S. M. Hight, C. L. Hight, A. B. Kundaswamy, J. C. Large, C. G. Lechler, E. L. Poyser, C. Rahm, W. Rahm, B. N. Short, C. K. Short, L. E. T. Short, V. S. Wooduvis and Ch. Dickins (Honorary Secretary and Chairman). **Visitors.**—Mrs. S. M. Hight, Mrs. E. Travers-Drapes, Mr. F. Ryle, and Mr. N. Hight.

1. The Chairman on opening the meeting stated that he had convened it at the request of Mr. V. Travers-Drapes, who wished to submit his report; it being his opinion that all members should know as early as possible what transpired at the recent U. P. A. S. I. meeting, especially concerning Finance, and the Forms sent out by Mr. J. S. Nicolls to all members of District Associations. The Chairman then called upon Mr. Drapes for his report.

THE DELEGATE'S REPORT.—Mr. Chairman, Ladies and Gentlemen,—I need refer to the proceedings of the whole U. P. A. S. I. Conference in Bangalore which lasted throughout five days, terminating in a general meeting on Friday, 24th August. Those of you requiring any particular information will find it in the Book of Proceedings to be issued as soon as possible.

The Meeting opened on Monday with a full Committee of all Delegates for the purpose of arranging Committees. The subjects on which your Delegate was instructed came under:

- | | |
|--|----------------|
| (1) Financing Planting Industries | ...Committee A |
| (2) Fixing by Government of a minimum
rate of sale for Standard Coffee in India... | ,, C |
| (3) Labour and Labour Department | ...,, D |
| (4) Labour Act 13 of 1859, especially coming
up for discussion was turned over to
Committee A consisting of a General
Committee of all Delegates. | |

FINANCING PLANTING INDUSTRIES.—It was the wish of your Association that the present position of proprietary planters should be fully discussed and that Government's intention regarding direct and immediate help to those needing and applying for the same should be ascertained. A great deal of discussion took place covering not only this point but the whole ground of finance through Exchange Banks dealing in Council Bills.

The interests of the Proprietary Planters were not lost sight of, as those of you who have read the newspaper reports and the Honorable Mr. Barber's speech must realise. Coupled with this the further information that came to light during discussion, left little for me to say. The ground covered embodied all the points you instructed me upon.

The further information referred to is that Government is prepared to help the proprietary planter, directly and immediately upon formal application, but only after the Finance Forms circulated are filled in and returned. In other words, gentlemen, it is only fair that we supply the information asked for by Government, before we can expect to receive the help promised.

That Government is going to help us is without doubt. A Conference is to be called as soon as possible, at which Planting interests will be fully represented. You will readily understand therefore that any resolution tending to bind ourselves down to a definite scheme, would seriously hamper the efforts of the planting delegates, who will be invited to attend this coming Government Conference.

For this reason the amendment to the original resolution proposed by South Wynaad was carried—(Amendment read).

Under the same heading but with reference to the Finance Forms the following resolution was carried.—(Resolution read.)

As it is impossible to expect Government to wait indefinitely, it is up to those who require direct aid to fill in and render these forms without delay. The sooner Government know the amount of financial aid required by planters the better able will they be to meet it.

(2.) **FIXING BY GOVERNMENT OF A MINIMUM RATE OF SALE FOR STANDARD COFFEE IN INDIA.**—The South Mysore Association brought this matter up in the first instance, but subsequently dropped it. Representing our Association as being of the opinion that Government action in the matter, would, if given effect to, strengthen the tone of the local market, keep prices up to a normal figure, and check the annual gamble that is now the custom, the matter was reopened in Committee. The only result arrived at was that it was an impracticable proposition, and in view of other resolutions carried under 8 (g)—8 (h)—and 8 (i)—on the Agenda which indirectly will have a controlling influence over local markets, I withdrew my resolution and voted in favour of the above-mentioned resolutions.—(Resolutions read.)

ACT 13 OF 1859.—At an informal but representative meeting held on Tuesday evening 21st August of all Delegates interested, this matter of amending the Act was thoroughly considered, followed by discussion in Committee on Thursday, and in open meeting, the resolution as read, was unanimously carried.—(Resolution read.)

SCIENTIFIC OFFICER.—Mr. Anstead, you will all be pleased to hear, will shortly arrange his 1917/18 tour. He hopes on this occasion to be accompanied by Mr. McRae—the Government Mycologist. Their visit to the Shevaroyes will also include investigation into the diseases of fruit trees, which I understand is taking a serious turn on these Hills. Those wishing to avail themselves of his and Mr. McRae's services should notify our Honorary Secretary as soon as possible.

Gentlemen, this closes my report. I again thank you for your confidence in electing me your Delegate. The position in these trying times, with new difficulties constantly, and without a word of warning, coming up, carries greater responsibility; requiring broad views, and openmindedness, a policy that produces constructive and not destructive criticism.

I have done my best in your interests, but not without the feeling that the pleasant task could have been placed in better and more able hands.

In criticising my report I ask you to be kind. Any questions put for the purpose of eliciting further information, I shall endeavour to answer.

The following pamphlets are laid on the table :

(1) "Members of Districts Associations who have joined His Majesty's Forces."

(2) "Report on Indo-Russian Trade" by Messrs. Chadwick and Black.

V. L. TRAVERS-DRAPES.

It was proposed by Mr. R. W. B. Gompertz, seconded by the Chair and carried unanimously: "That this meeting accord a very hearty vote of thanks to our Delegate for his services and report in connection with the U. P. A. S. I. Meeting at Bangalore."

A Rider was also added to the proposal by the Chairman, "that the report together with the proceedings of this meeting be published in the Planters' Chronicle."

2 COFFEE EXPORT TO U. K.—Read and recorded Circular No. 49/17, dated 5th September from Secretary, U. P. A. S. I.

3. Read letter dated 4th September from Secretary, U. P. A. S. I. also copy of letter No. 150 from Honorary Secretary, Mundakayam Planters' Association, relating to H. E. the Governor's visit to Calicut.

It was proposed by Mr. C. G. Lechler, seconded by Mr. S. M. Hight and carried unanimously: "That Mr. E. L. Poyser represent this Association at the Calicut meeting."

Mr. Poyser thanked the meeting for the honour they had done in electing him and said it would give him great pleasure to represent the S. P. A. at Calicut. The usual travelling allowance was sanctioned.

4. DELEGATE TO MADRAS.—It having been brought to the notice of the meeting that the Madras meeting would be held some time during October, and that it would be a very important one, affecting the planting community to a considerable extent, and as the present meeting was well represented a Delegate should be elected to represent the Shevaroy Planters' Association at Madras. It was proposed from the Chair and carried unanimously: "That Mr. S. M. Hight represent the Shevaroy Planters' Association."

Mr. Hight thanked the meeting for the honour they had done him in electing him to represent the Shevaroy Planters' Association at the Madras Meeting.

With a vote of thanks to the Chair the meeting terminated.

(Signed) CHAS. DICKINS,

Honorary Secretary & Chairman,

THE TREATMENT OF FUNGOID DISEASES ON ESTATES.

A Lecture delivered by Mr. R. D. Anstead, M.A., Deputy Director of Agriculture, Planting Districts, at the Annual Meeting of the United Planters' Association of Southern India, 1917.

I have been much struck by the contrast between different Planting Districts of Southern India in the way in which they attack the problem of fungoid pests. In some districts, and on some Estates, a great deal of careful attention is paid to this problem, and a considerable amount of money is spent on it; while in others hardly anything is done, and what little attempt is made to control diseases is made in a half-hearted manner and at a minimum of expenditure.

I do not think that the importance of fungoid pests is sufficiently realised, or the latter attitude would not be so often adopted. The loss of a few tea bushes, or a rubber tree or two, may not appear at first sight of any great importance, but I will try and show you just what it means.

Take the case of young tea, attacked as it so often is by a root disease. I was informed by a tea planter, whose estate I was inspecting a short time ago, that each tea bush when three years old had cost only two annas; that, was the cost of putting it there when the value of the land, clearing, seed, planting, weeding, etc., were all reckoned up. This is not the actual value of a bush, perhaps, because it also has a capital value as an asset; but we will accept this figure as being one of actual value. This same planter had a bad attack of root disease in his three-year-old clearings and was losing bushes up to 10 per cent. The bushes were planted 4 by 3½ or 3,000 to the acre, so the loss was 300 bushes per acre. The value of these is on our basis of 2 annas per plant Rs. 37-8-0. How many planters would be willing to spend this sum per acre on tackling the problem of root disease? Yet it would obviously pay to do so, could the bushes be saved, or even a proportion of them, for remember that the dead plants have to be replaced which will take another three years and cost, say, one anna each this time, or Rs. 18-12-0 per acre, and at the end of six years no return has been got from this total expenditure of Rs. 56-4-0 per acre.

Let us next take the case of coffee attacked by black rot. Last year an interesting experiment was carried out in Coorg to try and ascertain the actual loss of crop caused by this disease. I will not here go into details of the experiment, suffice it to say that a few trees had mats spread under them, some were sprayed and some were left alone, and the berries which fell off were picked up daily and counted and weighed, and the crop which matured on each group of trees was picked and weighed separately. The result was that we found that in a year when the disease was particularly light half a cwt. of crop per acre was destroyed by the fungus and could be saved by spraying. This may safely be put at Rs. 25 an acre, yet how many coffee planters are willing to spend that amount on preventive measures?

When we turn to Rubber we have a still more valuable asset in each tree. What is the value of a full-grown rubber tree as it stands in the field ready to tap? I have recently seen it put at Rs. 15. However, say an acre containing 120 trees cost £30 to bring into bearing—not an outside figure—each tree has cost a little over 5s. to put there, though its actual capital value is more than that. Yet many rubber estates are unwilling to spend Rs. 25 per acre on the control of fungoid pests, the value of six or

seven trees. The Government Mycologist has told you that this expenditure would, in all probability, prevent the trees being attacked by *Phytophthora*. When the trees are thinned out to 80 per acre, a position which must rapidly obtain in South India, the loss of a single tree, or the fact that a tree is thrown out of tapping for six months or more, due to the attack of canker or some other bark disease, will become of immense importance.

I maintain that we can easily afford to spend much more than we do at present on the treatment of fungoid diseases and that it would pay us handsomely to do so.

Thus on a certain estate in the Wynaad, Brown Blight attacked a big nursery very badly, 175,000 plants were endangered and the attack was so bad that orders were received by the Manager to destroy it and start again. Instead of this, however, it was treated carefully and thoroughly. All the diseased leaves were picked off and burned. All the dead and dying plants were removed and all the fallen leaves on the ground collected, and the beds were treated with lime. Light was admitted and watering was carefully done only when necessary. The nurseries were then sprayed with Bordeaux Mixture twice. The consequence was that the nursery was saved and the plants put out in the field. When the saving is considered, the cost of the seed, and the nursery, the fact that had it been destroyed as at first proposed the land waiting for the plants would have lain idle for at least a year and had to be re-cleaned and prepared, it will be seen that by prompt attention and the expenditure of a few rupees promptly—100 at the outside—a very large sum was saved.

On another estate a five acre patch of old tea particularly badly attacked left the bushes almost leafless, except for a small spurious new growth on the top of the branches. Other parts gave one the idea that a fire had run through the field. The new wood on all badly attacked bushes was whippy and wiry and could not be pruned on to, thus necessitating collar-pruning. When this was done the new suckers were attacked and killed which caused the ultimate death of the bush.

This area was put under special treatment; it was cultivated frequently and kept clean to get rid of all fallen leaves covered with spores so as to avoid re-infection. It was limed and manured with basic slag, and the field was sprayed with Bordeaux Mixture. At the same time all the diseased leaves were picked off, collected, and burned, this work being constantly and well done. In fact 17,269 lbs. of leaf were removed. This treatment was expensive, but thorough, and as well carried out as a preventive method could be carried out. What was the result? In six months the healthy foliage had been restored and the ground was completely covered where before it was exposed between the rows of bushes. the character of the wood had changed, and the bushes were growing rapidly. The disease was still present it is true, it is doubtful whether any method yet devised will completely stamp out a fungoid disease once it has got hold of a crop grown over an extended area, but there was not more on this field than on the rest of the estate.

The question is was it worth the trouble and money expended, was it a sound practical policy of the planter concerned to carry out our recommendations thoroughly and not stint the money for doing so? I leave you to answer that question, and in doing so just reckon up the value

of five acres of old Tea which would have been lost and would have had to be replanted and brought into bearing again, and set against it the fact that the operations described above cost Rs. 50 per acre.

On the same estate this disease was tackled with a great deal of success by collecting the diseased leaves; 40,000 lbs. of leaf were brought in during the year and burned. This method of control was not so expensive as it might appear at first sight, because children and others were employed in this work who would not otherwise have worked on the estate, and a cash payment was made per given weight of leaf collected. Where the labour is available this is undoubtedly an excellent means of controlling this disease as the leaves are picked off and destroyed before the spores are produced and distributed from them, and it serves as an excellent example of how an important disease, which is a menace to the Tea industry, may be controlled if the money is freely spent on it.

I will now indicate in the case of a few diseases how the methods at present adopted on many estates could be improved if a little more money were spent.

Take the case of Root Diseases first of all, fungi which attack all our crops and cause an immense amount of loss in the course of a few years. I do not wish at the moment to discuss possible methods of preventing the occurrence of these diseases, such as the removal of stumps of jungle trees known to induce the fungi before ever the land is planted up, the careful removal of stumps and roots of shade trees which may be cut out, and so on; but I wish to point out how the actual field treatment of dead plants may be improved. So often a root disease patch spreads and takes an annual toll of the plants around it. This can be prevented by careful work, provided the money is spent on it. In the first place the dead tea or coffee bush, or whatever it may be, should be removed as soon after death as possible. A big pit should be made and all the dead roots and decaying wood taken out and collected and burned. To do this thoroughly it is worth while passing all the soil from the pit through a sieve. Somewhere near the dead plant an old jungle stump will be found in most cases and this is in all probability the cause of the trouble. This should be removed at the same time with all its dead roots as far as they can be traced. The soil should next be thoroughly mixed with lime in liberal proportions in order to correct acidity and hasten the decomposition of infected organic matter. It should then be heaped up and exposed to the sun for a few months and it may then be safely replanted. In the case of bad attacks where a group of bushes have died, it may be necessary to put in isolation trenches. These trenches should be taken completely round the patch and should not be bridged by logs or roots, and the soil taken from them, which may possibly be infected, should be thrown into the patch and not scattered among the surrounding cultivation to infect it. Attention to all these details, which no doubt add to the cost, just means this, that the disease is controlled and, in a large number of cases, cured, and a supply will grow instead of dying out again in a few years leaving all the work to be done over again: and for this reason the extra trouble and cost is worth while.

One more example. Rubber diseases often necessitate the removal of a patch of bark and wood. In the case of canker, for instance, the diseased patch must be cut out and the wound thus made tarred. This work is more often than not done very badly. In the first place it is necessary to remove all the diseased tissue and healthy tissue for at least an inch round it; that is to say the diseased spot must be followed up and cut out till

healthy tissue is found for at least an inch all around it. The material removed should be collected and burned; it is full of fungus and probably capable of producing spores and infecting other trees. Consequently it is worth while spreading a bag at the foot of the tree to make sure that all the excised material is collected. Next tar is to be applied to the wound, but it should not be applied to the healthy tissue. Consequently it should be put on with a proper brush and not daubed all over the wound and the surrounding stem with the hand or a piece of fibre, or something of that sort. Again the tar should be of the right consistency and not too thick, as it often is. A very little tar is necessary, but I have seen trees in many cases left in a horrible mess of thick tar which undoubtedly burns the young bark and prolongs the time necessary for a wound thus maltreated to heal over, and moreover makes it most difficult to inspect the work later on to see if there is any sign of the recurrence of the disease. Thirdly, such treated patches should be inspected from time to time to see that boring insects have not got in, and they will occasionally need another coat of tar. Lastly, a most important point hardly ever attended to, the chisels, knives, etc., used for removing a patch of disease, canker, Pink Disease, or whatever it may be, are infected, and if used to make a brief inspection of another tree, may inoculate it with the disease. I have little doubt that Pink Disease is often spread in this way, and I know that Line Canker is spread from tree to tree by means of the tapping knives. Consequently as soon as a case has been treated all the knives, &c., should be disinfected before they are used on the next tree, and it would be well worth while conducting experiments to see whether tapping knives could not be carried from tree to tree immersed in some disinfectant such as a weak solution of formalin.

One could go on giving examples of how methods of treatment of disease could be improved if a little more time and money were devoted to them, but those I have already given will suffice. They lead me to the main point which I wish to emphasise, namely, the absolute necessity on each estate of a well trained pest gang, consisting of a maistry and a number of the most intelligent coolies who can be found, who should do nothing else but attend to diseases and treat each case well and thoroughly. The gang should be of such a size that it may get round the whole estate at least once a month. On a Rubber estate especially each tree should be inspected carefully for disease at least once each month.

Supervision is of course necessary and here I think there is room with advantage for an innovation. It is usually considered too expensive to employ a European Assistant for supervising work on pests and diseases only; even if one is appointed he is soon taken off to perform other duties. It always strikes me that there is too big a gap between the European Assistant on a big estate and the field-writers, and I would suggest the employment of a man intermediate between them in standing and salary, a man who has had a scientific training, and who is capable of dealing intelligently with diseases and carrying out the remedies recommended by the Scientific Officers. Such a post might well be filled by an Indian trained at Coimbatore. Were such posts available, the demand for men would soon be met. The advantages of having such a man on the estate, would be many. He would be placed in charge of the pest gang and do nothing else but look after disease work. His training would ensure that he was capable of recognising the disease when he saw it, and in its initial stage, of carrying out carefully and intelligently the methods recommended for its control. He would be responsible for the keeping of

spraying machinery in order, making up spray fluids properly, and he would generally supervise the work on pests and diseases.

One of the matters to be discussed at this Meeting is the advisability of appointing a Mycologist to study Rubber Diseases. If we had a Mycologist he would find such trained men on the estates an immense help. They would be capable of conducting experiments and carrying out investigations in the field and noting results with a trained mind and, moreover, they would have time to devote to such experiments which no Assistant or Manager can be expected to have. This trained man would only deal in the first place with known diseases; if he noticed a new disease he would report it and the aid of the Mycologist could at once be obtained, and there would be a certain amount of reliable information about the disease, its extent, position, and so on, to lay before him.

Let us consider how such a well organised pest gang under such supervision would work. On a Rubber estate they would inspect each tree at least once a month and examine it critically for Pink Disease, Canker, Bark Rot, etc., and treat it, if necessary, in the most approved way with the best tools and apparatus known, for it would naturally be an economy to give the gang the best possible known outfit. They would remove branches which had died back and dead fruit as a preventative against *Phytophthora*. They would notice the first signs of Root Disease and take the necessary precautions. They would paint trees with Bordeaux Mixture to protect them from Pink Disease; they would attend to old wounds, re-tarring them if necessary, wounds on the tapping cut, and ensure that bark preservatives were being properly applied, and collecting cups kept clean. Whenever no other work was available the gang might be profitably utilised for removing old stumps and on general estate sanitation work. I might here say that when thinning out is done it is absolutely necessary that the stumps of the rubber trees should be removed below ground level if fungoid diseases are to be kept under control. It is not only fungi which cause Root Diseases which are to be feared, but also bark fungi which can live and propagate on such old stumps. In Ceylon *Ustilina* and other fungi have been found to develop on Hevea logs left lying in the field after thinning out,

On a Tea estate the pest gang would inspect each field each month and attend to Root Disease cases. They would notice and deal at once with attacks of caterpillars, which often do a considerable amount of harm before they are discovered by the pluckers. They would deal with leaf fungi, like Brown Blight and *Gleosporium*, and be in a position to notice at once when these were getting bad enough to warrant treatment, especially in clearings. They would inspect nurseries regularly and keep them sprayed against leaf diseases. They could also control the Mosquito Blight work and go over pruned areas to see that the bushes had been properly cut and cleaned, and they would apply washes to clean the stems of *epiphytes*. Again when other work failed they could be employed to remove jungle stumps, especially those known to be likely to cause Root Disease.

On a Coffee estate such a gang would be equally useful. They would deal with Borer trees rapidly, spray for Scale Insects, Black Rot, and Leaf Disease and treat Root Diseases, seeing that isolation trenches were clean and open. They would also regularly inspect all the shade trees for Scale Insects and other pests.

The great advantage of such a system would be that diseases would be attended to immediately upon their first appearance and before they could make headway, a matter of the utmost importance when dealing with any disease. Too often is it the case that the trees are known to be diseased, but they are not attended to for some time afterwards and their locality is not then accurately known. How often does it happen that I am taken to see a tree suffering from Canker, say, and after finding a writer, who finds a maistry, who finds a cooly, who wanders about for some time, the tree is at last found and—is not suffering from Canker at all. This picture is not overdrawn and it is an unsatisfactory position of affairs.

Under the system which I suggest the work would be well done under skilled supervision and from my observations there is room for a great deal of improvement in the way such work is done at present. It should be impossible for an estate which is attending to diseases properly to show me a number of trees dead of Root Disease. The utmost that should be possible is to show me the pest gang actually removing such a tree.

Parasitic Diseases are a serious matter in South India and are likely to become more so as time goes on. Especially is the matter of importance on Rubber estates, where so many fungi can attack the bark, and every possible precaution should be taken to guard against such diseases and control them. *The India Rubber Journal* stated a little time ago that "it is as well that all the interests of our industry should bear this factor in mind. While we believe that the moist hot atmosphere prevailing in the rubber areas will make it easy for parasitic fungi to spread, we are convinced that, *if proper precautions are taken*, the damage done will be small. The Rubber Plantation Industry has not yet realised the danger ahead and it should be possible to ensure considerable sums of money from every one interested in plantation rubber to protect this magnificent national asset."

Are such sums of money forthcoming in South India? At present, as some one remarked the other day, more is spent on the hoop iron put on the rubber chests than on the Scientific Department. The Journal quoted above places the responsibility of any disease doing a large amount of harm in the future on the shoulders of the Scientific Department. Is this fair in our particular case? Have the Rubber Planters of South India taken all the steps in their power to equip their Scientific Department with men and means to deal with diseases, or to ensure that the recommendations made by that Department, such as it is, are carried out properly on the estates? I venture to think not.

It is not only the Rubber Industry which is threatened by diseases. Tea and Coffee are in the same danger. Coffee planters know what a disease can do, they have seen the effects of Leaf Disease in Ceylon and Green Bug in the Nilgiris and Pulneys. Tea planters in the North have witnessed the effect of a leaf disease like Blister Blight, and some of us in South India have had an inkling of what a bad fungus attack on the leaves might mean, when for some unexplained reason, Brown Blight began to do damage over a limited area last year.

Now is the time before the trouble comes, as come it will one day be sure, to see to it that you have a properly equipped Scientific Department with staff and money to deal with it, when it comes, and a properly equipped and staffed organisation on the estates for carrying out the recommendations of that department.

Note.—The following extract from a paper written by a planter and entitled "Clean clearing" which appeared in the *Agricultural Bulletin of the Federated Malay States*, V, 8 and 9 which has come to hand since the above lecture was delivered, is of interest as bearing in this question.

"Most planters have a nodding acquaintance with the history and treatment of the various diseases and pests common to the country" but is this sufficient? Take the generality of estates out here. "They rely almost entirely on the planting manager. He does his best" "according to the book," but is it satisfactory in reality? Consider too that each planting manager in turn relies on a working "coolly gang very briefly supervised. Is it not possible that something" "really essential has been missed or left undone? Is a system controlling" "scientific work based on such lines correct? It is true our losses from" "all causes of pest and disease would probably never total what we have" "had to thin out, but is this adequate insurance against the future? We" "planters are not 'rubber doctors' I have even heard it said that we are" "only 'crude agriculturalists' which is probably true, because the economic equation to our training is the 'almighty cost per lb.' or 'cost per" "acre' as the case may be. Therefore if we are to keep up with a science" "that daily claims a larger share in the ethics of present day planting" "methods and if we are successfully to apply these teachings, ought there" "not to be on every estate a co-ordinate staff of some kind trained for" "field operations if not in actual control?"

"We have already group hospitals and group doctors. Why not" "mycologists? This is the most effective means of getting into close" "contact. A man who is on the spot can devote his attention to things." "A visiting Mycologist only touches the surface. This could be further" "elaborated by Kranis, overseers, and conductors, being taught a certain" "amount of practical work in technical schools. In India, I believe, a" "great deal has been done and they turn out some very good men. What" "we want are such men who would take up a position in the working" "staff, correlative with doctors, dressers, attendants, etc., in the medical" "line. This slap-dash easy-going method of ours is all wrong, and I" "believe the industry must waken up sooner or later to this."

DUMONT COFFEE.

The rather surprising announcement that the prohibition on imports of coffee into this country, imposed in February last, has now been removed, is naturally calculated to encourage the Brazilian trade. So far the industry has not suffered from the war, the Dumont Coffee Company reporting a very favourable year. The net profits amounted to £56,400, as compared with £20,600 for the previous twelve months, and, though far below the highest figure recorded, is a fair average of the company's always fluctuating earnings. The ordinary shareholders get 4 per cent., the first distribution they have received for four years, and the balance in hand is raised by £10,400. The improvement was mainly due to the high selling price averaged, which far more than offset the increase in freights and other charges.—*Truth.*

CORRESPONDENCE.**Answers to Resolutions.**

RESOLUTION No. V.

T. 1402-1.

GOVERNMENT OF MADRAS,
Public Department,
(Marine.)

From

The Hon'ble Mr. L. Davidson, C.S.I., I.C.S.,
Acting Chief Secretary to the Government of Madras.

To

The Secretary,
United Planters' Association of Southern India,
Bangalore,

Dated, Ootacamund,
the 15th September, 1917.

Sir,—I have the honour to acknowledge receipt of your letter dated the 8th September, 1917, and to state that the question of improving the Cochin harbour is at present engaging the attention of Government.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) R. H. COURTNEY,

For Chief Secretary.

No. 3128-1.

GOVERNMENT OF MADRAS.,
Home (Miscellaneous) Department,

From

The Hon'ble Diwan Bahadur R. Ramachandra Rao Avargal,
Secretary to the Government of Madras.

To

The Secretary,
United Planters' Association of Southern India,
Bangalore,

Dated Ootacamund,
the 15th September, 1917.

Sir,—I have the honour to acknowledge receipt of your letter dated the 8th September, 1917, forwarding copy of a resolution passed at the Annual General Meeting of the United Planters' Association of Southern India.

I have the honour to be,

Sir,

Your most obedient Servant

(Signed)

For Secretary.

Government of His Highness the Maharaja of Mysore,
General and Revenue Secretariat,

No, G. 3668

Bangalore, dated 14—9—1917.

G. N. 286-17-2

RESOLUTION NO. IV.

From

C. S. Balasundaram Iyer, Esq., B.A.,
Secretary to the Government of His Highness the Maharaja of Mysore,
General Department.

To

The Secretary,
The United Planters' Association of Southern India,
South Parade, Bangalore.

Sir,—I am directed to acknowledge the receipt of your letter of the 8th instant to the address of the Dewan, communicating a resolution passed at the last meeting of the United Planters' Association of Southern India on the subject of the Hassan-Mangalore Railway.

I have the honour to be,

Sir,

Your most obedient Servant,

(Sd.) C. S. BALASUNDARAMIYER,

Secretary to Government,
General Department.

Cowcoody, Somwarpet, N. Coorg,
September 6th, 1917.

THE EDITOR,

Planters' Chronicle.

Dear Sir,—In case some of your readers in coffee did not see the Appeal in the *Madras Mail* for coffee for the Ladies' Depot and the Hospital Ship "Madras," I send the enclosed letter. As I feared the embargo on coffee has now been renewed and Brazil and Cost Rica have plenty of ships at their disposal. A small proportion of the coffee at present unsaleable in the country would no doubt be much appreciated and to however small a degree would help to advertise the virtues of E. Indian coffee.

Yours faithfully,
"COFFEE."

(Enclosure)

The Ladies' Depot,
Government House, Madras.

Dear Sir,—Messrs. Peirce, Leslie & Co., have sent in 182 lbs. of coffee which they say has been sent under your instructions. I cannot tell you how very grateful we are for this quantity, the many regiments we supply all ask for coffee, and we can never get enough. With renewed thanks,

Yours truly,
(Signed) A. ELWES,
Honorary Secretary.

SCIENTIFIC DEPARTMENT U P. A. S. I.

Scale of Fees for analysis in the Bangalore Laboratory

A.—SOILS.

	Rs.
1. Complete Chemical Analysis, including the available Potash and Phosphoric Acid	40
2. Mechanical Analysis	10
3. Complete Chemical and Mechanical Analysis	50
4. Calcium carbonate and oxide content	10

B.—FERTILISERS.

1. Potash in Potassic Fertilisers	8
2. Phosphoric acid, total and citrate soluble, in Phosphatic Fertilisers	8
3. Organic Matter, Insoluble Matter, and Nitrogen in Poonacs, &c.	6
4. Organic Matter, Insoluble Matter, Nitrogen, and Phosphoric acid in Bones, Fish, &c.	8
5. Complete Analysis of Fertilisers such as Composts, Cattle manures, &c.	20
6. Complete Analysis of Lime, Limestones, and Slaked Lime	10

Half the above rates will be charged to all Members of District Planters' Associations.

For methods of taking samples of Soils and Fertilisers and the quantities to send for analysis see *Planters' Chronicle* Volume X. pages 207 and 216.

All samples for analysis should be sent plainly labelled to "The Planting Expert, 25, South Parade, Bangalore," and should be accompanied by a covering letter giving full information about the sample and the analysis desired according to the above table. Fees should be remitted to "The Secretary of the United Planters' Association of South India, 25, South Parade, Bangalore."

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 39.]

SEPTEMBER 29, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

Telegrams were sent out last night from the U. P. A. Offices to all the Councillors and Honorary Secretaries of District Associations informing them that a Conference of Planters and Bankers was called by H. E. the Governor of Madras to discuss planting finances, on the 5th October at Ootacamund. At the same time and place a deputation from the United Planters' Association would be received by His Excellency in accordance with Resolution XIV published in the *Planters' Chronicle* of September 8th, 1917.

With the approval of the Chairman, U. P. A. the letter (including correspondence) of the Hon'ble Mr. E. F. Barber, Planting Member, to the Acting Chief Secretary entering a strong and restrained protest against the release of Mrs. Besant is published. It was deemed advisable to publish this letter as soon as possible, as voicing the opinions of the Planting Community, who are inferior to no body in India in their loyalty to the authorities.

The interesting lecture delivered by Mr. W. McRae, Government Mycologist, at the last Annual General Meeting of the United Planters' Association on Abnormal Leaf fall of Hevea is published, and, with his kind consent, the diagram shown to the Delegates and prepared by him is printed, explaining the process of leaf fall.

We publish our weekly letter on Markets Prices and Statistics.

The Hon'ble Mr. Barber in the course of his speech at the Annual General Meeting read some correspondence between himself and the Revenue Secretariat on the subject of Finance and Shipping, which is published.

Our correspondence columns contain a letter from Mr. Murphy. It cannot be too widely known that but for the serious and unfortunate illness of our Reporter, Mr. Bremner (who has all our sympathy) the last day's proceedings would have appeared in the *Madras Mail*.

Messrs. Saldanhas and Sons' letter is serious and it has received and is receiving every attention possible from the Chairman and Planting Member.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged ...	66,361	8	2
Messrs. Barber & Pascoe ...	75	0	0
Total Rs...	66,436	8	2

With the approval and sanction of the Chairman of the United Planters' Association, his letter to the Planting Member and the latter's excellent one to the Acting Chief Secretary to the Government of Madras is published. We are confident that it will meet with the unanimous support and approval of the Planting Community.—[ED.]

RELEASE OF Mrs. BESANT.

Ootacamund,

24th September, 1917.

THE SECRETARY,

U. P. A. S. I.,

Bangalore.

Dear Sir,—The Chairman has asked me to protest against the release of Mrs. Besant. I believe it is an understood thing that our Association holds itself aloof from political discussions, but this seems to be an exceptional case and one which may affect our interests very vitally, so, as I am in agreement with the Chairman's request, I have written to the Chief Secretary to Government and enclose herewith a copy of my letter. This may be published in the *Chronicle* if the Chairman and the Executive of the U. P. A. S. I. are agreeable.

Yours faithfully,

E. F. BARBER.

Daverashola Estate,

Devārshola, P. O.,

Nilgiris, 21st September, 1917.

RELEASE OF MRS. BESANT.

Dear Sir,—There is no time for me to circularize all Councillors of the U. P. A. S. I.—as if any action is taken, I think it should be immediate—and if you are of the same opinion as myself—I would ask you to place before Government a strong protest against the unrestricted release of Mrs. Besant and her confederates. I fully recognized and appreciated the forbearance shown by His Excellency

Lord Pentland and the Madras Government to Mrs. Besant and her confederates when offering them release from their internment—on their giving a promise to confine their energies in furthering their theosophical propaganda on constitutional lines. The action of the Government of India in recommending the Government of Madras to remove the restriction placed on Mrs. Besant and her confederates, can only be viewed as a premium on further agitation.

Yours sincerely,

(Sd.) J. S. NICOLLS.

Chairman, U. P. A. S. I.

The Hon'ble Mr. E. F. Barber,
Ootacamund.

Ootacamund,
24th September, 1917.

The Hon'ble Mr. LIONEL DAVIDSON, C.S.I., I.C.S.,
Acting Chief Secretary to Government,
Stone House Hill,
Ootacamund..

My Dear Sir,—My Association and Planters in general have not hitherto taken any active part in politics and there has been no need to do so, but at the present juncture I have been asked to make a strong protest on behalf of my community against the release of Mrs. Besant and her associates.

We have followed the course of events with much interest and I can say that the action taken by the Madras Government met with the approval of all, though to some, without any real knowledge of the matter, it appeared that this action was taken somewhat tardily.

It is, therefore, with grave concern that we see the considered action of the Madras Government overruled. Naturally we have no knowledge of the main facts of the case beyond what has been published in the papers, but from that we consider that the internment was well advised and necessary in the best interests of the country, so equally we believe this unconditional release to be a blow to the prestige of the Government and a serious danger to the country.

As a scattered community we have some opportunity of judging the feeling of the people, for we are in constant touch with that class which forms the bulk of the population. It is on behalf of such as these that we have a right to protest against this mischievous Home Rule propaganda being allowed.

What are the facts of the position now? When one of the lower classes is ill or in trouble does he go to one of his educated fellow countrymen for help or relief? I believe in the village he will always lay his case before the European District Official and certainly on the estates he will invariably take it where he knows he will get a fair hearing, to the European planters. I believe that very often the poorer Indian is looked upon as something to be exploited by his more fortunately placed brother. I know that petty tyrannies that lead to extortion are rife.

On the other hand we find a small body of men always ready to seize the slightest pretext to make trouble where no trouble existed before, and since we find that these men, nearly always, are members of the same profession, and belong to the same class that is shouting for Home Rule, we can only come to the conclusion that this Home Rule cry as voiced by Mrs. Besant has no real national feeling behind it, but is merely self-advertisement for the self-aggrandisement of a few, who in their boastfulness call themselves the mouthpiece of the people.

I am glad to think that we, planters, do not hold views dissimilar to those held by the big Indian landlords, anyway our occupations are rural and we have the right to speak for the rural community.

We have to be governed too and we must ask the Government to see to it that we are protected from a propaganda that seeks to influence the popular imagination and which, if allowed unbridled license, can only lead to bitter class hatred and perhaps even to race hatred.

We seek to follow our avocation quietly, we have full confidence in the Government of Madras and that Government has our unswerving loyalty.

Yours sincerely,

(Signed) E. F. BARBER.

ABNORMAL LEAF-FALL OF HEVEA.

Mr. W. McRae, the Government Mycologist, who last year read an interesting paper on the discovered causes of the abnormal leaf fall of Hevea rubber, was able, owing to more recent work in the same direction, to add to the information already gained on this subject in the following notes, which he read at the Annual Meeting of the U. P. A. S. I.

At the last annual meeting I had the pleasure of reading a note about the damage done to Hevea rubber trees by a fungus named *Phytophthora*, and at a subsequent meeting of the R. G. A., I proposed that an experiment should be tried on a sufficiently large scale to test the suggestions I had made for controlling the fungus. I suggested it should be done on blocks of 100 acres in several places and the managers of four estates very kindly offered to make the experiment. The object of the experiment was to decrease the growth of the fungus and to reduce the amount of second leaf fall. The work was done under the supervision and control of the managers of the estates, and consisted in removing dead branches and fruits and in burning and burying them. The dead branches were cut off between February and April, when the new leaves had developed, and made the living and dead branches easily distinguishable, and they were burned on the ground. The leaves and charred remains were swept up and buried. During May, when the fruits were rather more than half grown, they were cut off and buried.

The idea underlying the former operation was to destroy the *mycelium* of the fungus that lives through the dry weather at the junction between the dead and living parts of the branches that have partially died back, owing to the attack of the fungus in the previous growing season; while that underlying the second operation was to remove the fruits which, during the early part of the monsoon, are the great breeding centres for the multiplication of the spores.

On each of the four estates two plots were chosen of approximately equal size, of the same age, of similar growth and under as nearly as possible similar conditions. On one plot the operations just described were carried out and on the other nothing was done. The latter was to be used as a check-plot to test the difference between the two. In only one case was the work carried out on 100 acres. On the other three estates, for various reasons, chiefly to do with the shortage of labour at the time the fruits had to be taken off, the work was done on about half that area. The actual acreages of the experimental plots in each case were Estate A 105 acres, B 50, C 60 and D 60. Mr. Anstead and I visited the estates during April and saw the work in progress and again during the last week or two to see the result. I shall briefly give you the record of each.

On Estate A the experiment plot consisted of 105 acres of 1909 planting. The removal of dead branches was begun on 12th February and the removal of fruits was practically finished by the end of May. During June some work was done in finishing off and clearing up. Most of the branches had been removed and also most of the fruits. Here and there an occasional dead branch and a few fruits had been left on the trees, chiefly on the upper branches, where they were difficult to get at. The work was as well done as it ever could be under estate conditions. We walked through both plots to get a general idea of the difference and came to the conclusion that the experiment plot had less leaf fall. We then took a diagonal line across each plot and a line at right angles to it and examined the trees individually. In the experiment plot we examined 564 trees and found 36 were diseased

or 6 per cent. and in the check plot we examined 472 trees and found 282 diseased or 80 per cent. Where fruits had been inadvertently left on the experiment-plot they were as a rule healthy, whereas on the check-plot most of the fruit was rotten. The manager, writing on the 10th instant, when leaf-fall had more fully developed says that the difference between the two plots was then very much more marked than when we were there.

On estate B, the experiment-plot consisted of 50 acres of 1906 planting with 120 trees to the acre. The removal of dead branches had been done fairly well, but there were more left on the trees than I had hoped. The removal of the fruits was begun rather late and the work was not complete when the monsoon broke. Thus this experiment could only demonstrate the difference that taking off dead branches would make. Leaf fall was severe this year and a considerable amount of leaf was coming down when we were there on the 25th and 26th July. Most of the fruits on both plots were rotten. The leaf-fall on the experiment plot was less than on the check-plot, but the difference was too small to be really significant.

On estate C, the experiment plot consisted of 60 acres, divided into two plots of 30 acres each. On the whole 60 acres the dead branches were removed thoroughly in two rounds, one in March and the other in April. In May the fruits were removed thoroughly from 30 acres and only partially from the other 30.

The amount of leaf fall was distinctly less in the 30 acres of the experiment plot that had been done well, and a little less in the other 30 acres, compared with the leaf fall in the check plot.

On estate D, the experimental plot consisted of 60 acres, 40 of 1906 planting and 20 of 1907 planting. The removal of both branches and fruits had been done well. Leaf fall on the estate had not reached its height. On the 11th instant when we saw it there was less leaf fall on the experiment plot. The final result, however, ought to be recorded later in the year.

Our examination of the plots must be considered as preliminary. Second leaf fall this year began rather later than usual, owing to the long continued drought and the lightness of the monsoon for some time, so that the experiment was not complete when we saw the plots last. All that can be said now is that on the whole where the removal of branches and fruits had been done thoroughly, there is promise that the second leaf fall will be very much reduced. Later on I shall visit the plots again and give the final results.

Rs. A. P.				Rs. A. P.			
Cost	{ Estate A ...	2,060	9 10	or	19	10	0 per acre.
	{ Estate B ...	795	6 0		15	14	0 "
	{ Estate C ...	583	4 6		9	8	0 "
	{ Estate D ...	1,181	3 0		19	11	0 "

In the discussion which took place after the Government Mycologist had read his interim report on the experimental work which is being done in connection with this disease it was suggested by Mr. Fraser, and the Hon'ble Mr. E. F. Barber that the methods recommended would not be possible in estate practice because it would need such a large number of coolies to remove the fruit pods and clean up the trees and the usual labour difficulties were brought forward. Mr. Anstead pointed out that the work required would be less and less each year as the trees treated in one year would

not be so badly attacked, and said that he imagined that if there was only a limited amount of labour on any given estate it was an open question whether this should not be utilised for dealing with diseases and other work allowed to go undone. This was a matter for planters to decide for themselves, but he wished to impress on them that diseases were immensely important and possibly more so than much of the regular estate practice such as clean weeding. A regular pest gang of 20 or 25 good coolies under the supervision of a properly trained man who worked every day in the year at diseases only would make an immense amount of difference on any estate.

In connection with this discussion it is of interest to hear the views of Mr. S. P. Eaton, Pullengode Estate, where one of the Experiments in question was conducted. Mr. Eaton was unfortunately unable to be present at the Meeting but he now writes as follows:—

"It is of course out of the question to treat any very big acreage in any one year on account of labour difficulties, but one can make a beginning with say 100 acres as was done on Pullengode. This area will cost less to treat the following year and so say another 50 acres might be treated and so on as labour permitted and I most heartily agree that other work might be given up for a work which is evidently of such supreme importance. As an estate gets older weeding becomes vastly cheaper and this is the very labour—women and children—which one chiefly requires for the leaf-fall work these are also other works which manages could economic on in labour according to their local conditions and necessities; more especially I would mention manuring."

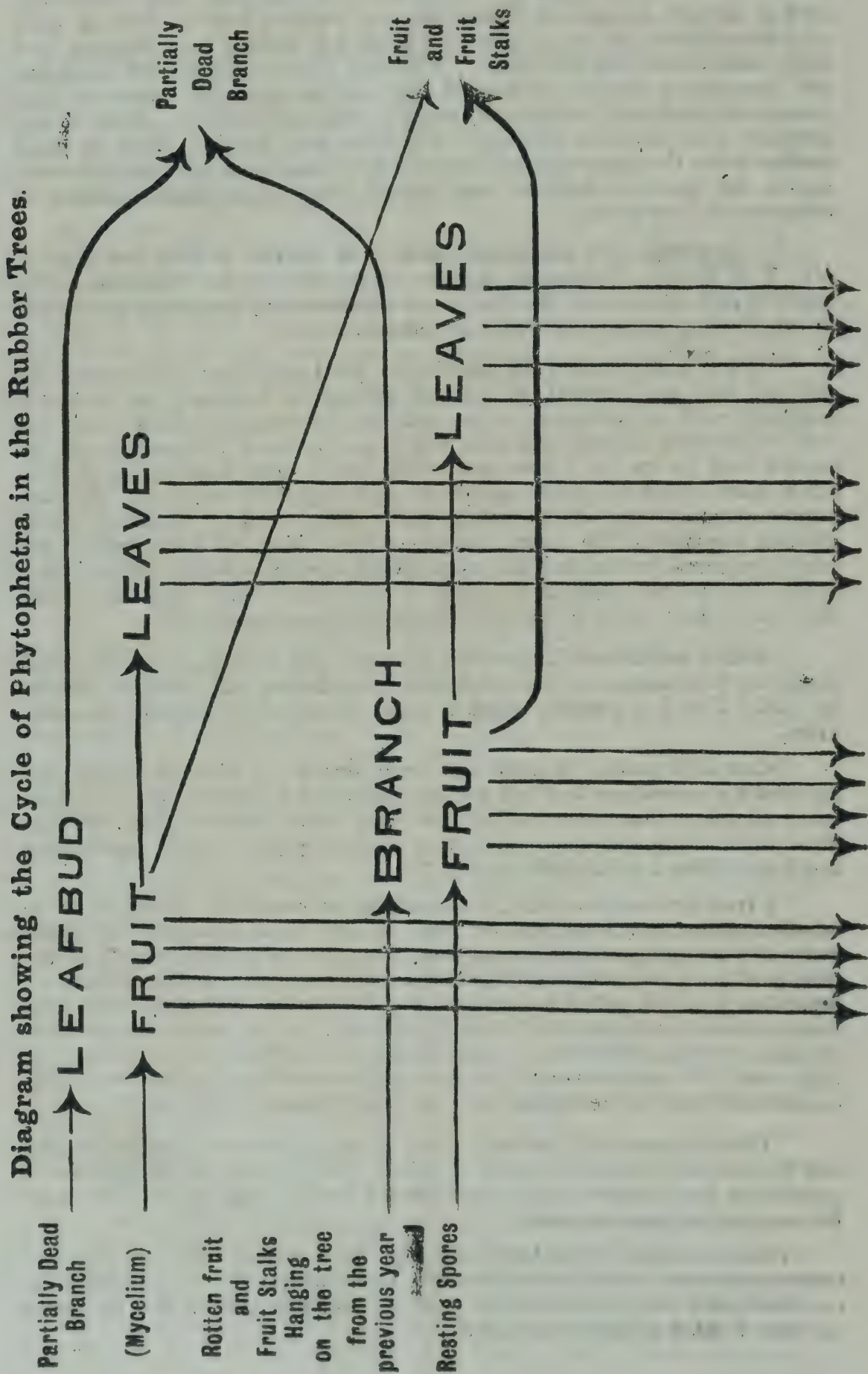
"Which would benefit the estates most, the carrying out of a full manuring programme, or the curtailment of manuring in order to control leaf fall? This is a question which I think needs very careful consideration."

"Can any rubber planter say with conviction that manuring has reduced his secondary leaf-fall to any appreciable extent; or are there many who have done experimental manuring with control plots who can show such a large increase in yield that it not only pays for the application but leaves them a reasonable profit?"

"I trust you will not think I am trying to raise the question as to whether manuring is beneficial or not. It has been accepted for many years that its application is an excellent thing for the general health of the tree, good bark renewal etc.; but when we are faced with a disease such as secondary leaf-fall, which must yearly sap the vitality of the tree more and more and may quite possibly kill it in the end, I think we should carefully consider every possible way of controlling it even though the cost may be high; and if its control entails a reduction of expenditure on other works it is conceivable that this reduction may prove good policy in the end."

"There is practically no leaf-fall at all on my treated experiment plot and the rest of the estate is badly attacked. The results of the treatment carried out have been so good that I should hardly like to see the work thrown over as impracticable."

This is a most interesting statement by a planter who has tried the recommendations made by the Scientific Department and who carried them out thoroughly and conscientiously and we should be glad to hear the views of other Rubber planters interested.



MARKETS, PRICES, AND STATISTICS.

Coffee.

Monthly statistics to 31st July.

	1917.	1916.
	tons.	tons.
EAST INDIA—		
Landed to 31st July	2,807	2,035
Delivered to 31st July	1,013	1,868
Stock on 31st July	2,561	1,553
COFFEE OF ALL KINDS—		
Stock in U. K. on 31st July	49,000	35,300
Total European Imports to 31st July	129,305	229,405
Total European Deliveries to 31st July	164,060	227,945
Total European Stock on 31st July	190,705	207,765
World's Visible Supply on 31st July	469,530*	464,455

* An increase of 13,000 tons as compared with an increase of 47,590 tons last year.

Offerings at auction have been:—

	1—14 August.	Since 1st Jan.	Last year.
East India	853	24,838	26,906
Costa Rica	893	70,418	89,335
Other Milds	312	36,322	58,174
Brazil	378	67,280	66,785
Robusta	Nil.	724	1,351
B. E. A.	Nil.	4,971	7,369
Uganda	155	11,303	

Messrs. T. H. Allan & Co. in their Weekly Report dated 15th August say: "Auctions were resumed yesterday when small supplies met with a demand at higher prices. The lack of Costa Ricas is turning more attention to East Indias of suitable grades and we should see a further improvement, but we must not forget that we have only the Home Trade to rely on."

The local prices of Coffee are as follows:—Peaberry Rs. 10/8 to Rs. 12, Parchment Rs. 8 to Rs. 9 per 26½ lbs. Chickmaglur quotes Peaberry at Rs. 11/8 to Rs. 12, and Native at Rs. 7/8 to Rs. 8/4 per 28 lbs.

The following prices have been obtained for South Indian Coffee:—

—	Extra.	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
MYSORE.							
Chetanbulli ...	...	36. 88/6	29. 85/-	4. 80/-	9. N.	6. 80/-	...
Bibbenluke ...	...	8. 80/6	8. 76/6	2. 73/6	3. 78/6	2. 69/-	77/3
do. ...	...	31. 82/-	12. 79/-	1. 74/-	9. 81/6	5. 75/6	80/7
Guntanaik ...	...	14. 80/-	15. 76/-	2. 71/6	5. 78/-	7. 71/-	76/6
do. ...	...	26. 82/6	10. 78/-	3. 71/6	11. 80/-	8. 75/6	79/8
ANAMALLAIS.							
Paralai ...	6. 89/6	19. 86/6	18. 84/6	9. 80/6	5. 92/6	5. 79/-	85/3
SHEVAROYS.							
Hawthorne ...	7. 87/6	8. 86/6	7. 84/-	1. 79/-	2. 87/6	1. 76/-	85/3
NILGIRIS.							
Hallacary ...	11. 86/6	10. 84/6	4. 79/6	1. 77/-	1. 88/-	1. 76/-	83/10
Manaar ...	11. 91/6	20. 90/-	49. 88/-	10. 83/-	11. 96/6	6. 79/6	88/10
Thiamulla ...	...	165. N.	30. N.	1. 72/-	12. N.	...	...

Rubber.

The following are the figures of Import and Re-export for the U. K.

	July 1917.	July 1916.	January to July 1917.	January to July 1916.
Imports ...	158,607	114,435	1,259,835	944,096
Re-exports ...	75,456	72,043	882,576	666,932

Tea.

Ceylon Sales.—At the sale on 25th September at Colombo about two million lbs. were offered and the feature of the sale was the active demand for leaf grades, all qualities showing some advance upon last week's prices particularly the fine sorts. Good liquoring and tippy broken orange pekoes were also in good demand at former rates but undesirable liquoring, medium, and common broken were neglected and rated easier with a decided downward tendency. There was more demand for dust and fanings. The selection was fairly representative but with variable quality.

Tea in England.—A London telegram states that the home papers are discussing the shortage of Tea and the possibility of "no tea" replacing the familiar "no sugar" placards in shop windows. The supply of Indian tea marketed during the third week in September was abnormally low being under two thousand packages compared with the normal six thousand while the Ceylon supply was almost as low. Inferior facilities for handling in the North makes the present landing of tea at Liverpool instead of London a contributory cause of shortage.

R. D. A.

CORRESPONDENCE.

The following correspondence was read at the Annual General Meeting by the Planting member on the subject of shipping and finance:—

Ootacamund, 16th August, 1917.

Shipping and Finance.

My dear Knapp,—As the United Planters' Association of Southern India Meeting is on Monday next, and as it has been impossible to arrive at any conclusion on the matters we have discussed, I think it is as well to recapitulate as shortly as possible the points that have come up for discussion.

The whole position in regard to Shipping and Finance is a difficult one to discuss, different factors enter in but they overlap, and directly one aspect of the matter is examined some other issue obtrudes itself and the point becomes obscured.

It is chiefly this that makes it difficult for us to put our case before the Government in a clear and concise manner, but it is also difficult to collect the data required from a scattered community dealing in different products and representing varied interests.

I think if the disabilities of the planting industry are compartmented as far as possible they will prove easier of solution.

I. DIFFICULTIES CAUSED BY THE RESTRICTION OF EXPORTS.

(a) Of those who have the export of their produce entirely prohibited, e.g., Coffee Planters.

(b) Of those whose export is restricted by the Food Controller at Home.

(c) Those difficulties due to the further restriction imposed by the lack of tonnage.

It is quite understood that we have no complaint to make because the restrictions have been found necessary. Our only request is that we may be assured that the Government of Madras will look after our interests and will see that we receive even treatment as compared with other producers in the Empire, and better treatment as compared with producers in the rest of the world.

We find it impossible to collect accurate details in regard to this but we firmly believe that we are not receiving even treatment.

1. We are told that Brazil coffee was imported into the United Kingdom after effect had been given to the prohibition of East India Coffee. There may be some good reason for this but I have not heard of it.

2. We find that the exports of tea from Ceylon are very little less for the period January to June this year than they were last year and in previous years, a matter of 5 or 6% at the most. I do not know what crop is now held up in India but from figures I have been given I do not think it can be less than 20% of our half year's crop.

3. A Ceylon Ordinance dated 9th August prohibits the import of tea into Ceylon except under permit, and at the same time we find the import of Ceylon tea into India is increasing rapidly as I think the Customs figures for June will show.

4. We are told that there is little difficulty in shipping tea from Calcutta, and no difficulty in shipping rubber from Burmah and the Straits.

5. Ships have been stopped from calling at the West Coast Ports and Tuticorin, and those that call at Madras take little more than Government requirements yet we hear of those same ships going on to Colombo and taking estate cargo from there.

6. There is one other point that has been raised and that is in regard to the purchase of War Office requirements of tea. I believe that some concerns have secured contracts that will enable them to sell and ship their whole crop. This, of course, is an advantage to individual concerns, but I do not think it is right that there should be individual treatment at a time like this when Government must be anxious to prevent the collapse of the whole industry.

II. FINANCIAL DIFFICULTIES.

- (a) Of those who have no money and have no gathered crop to offer as security.
- (b) Of those with no money and who are unable to ship or otherwise dispose of their produce.
- (c) Of those who are able to ship some part of their produce, but not to such an extent as to enable them to keep going.
- (d) Those difficulties caused by the restrictions of exchange which may affect those who have produce shipped and money at Home.

There are possibly some other difficulties but I think it is only necessary to consider these to decide if relief should be given and what form this relief might take.

I am aware that a case that may be considered as coming under the heading (a) has already been before the Government. I think there are likely to be other cases of this nature for it is not unusual for coffee planters to finance their estates by hypothecating their crops months before they reach maturity.

The difficulties of those in (b) and (c) are similar, if they cannot get an Agent or a Bank to advance them against crop in godown.

In regard to tea I do not believe that any difficulty will be felt provided space is available to enable them to ship the full quantity allowed by the Food Controller, (though some hardship may be felt by those estates which are only partially developed and are relying on their revenue to come fully into bearing) and provided the Banks can either purchase bills or give over-drafts against securities at Home.

This brings us to (d) and as far as I am aware these difficulties are purely in anticipation, for hitherto I do not think that the Exchange Banks have failed to purchase bills drawn against estate produce and I believe that this is a claim that they make themselves. It was, however, the warning of the Exchange Banks that they might not be able to purchase planters' bills in the future to the extent they had done in the past, that caused the Chairman of the United Planters' Association of Southern India to call the Meeting in Madras when representatives of all the leading Banks were present, in order to discuss a situation that might arise.

It is obvious that the question of tonnage and shipments does effect and influence the manner of financial assistance to a very great extent, for as more and more crop gets held up in the country more planters are likely to come under the categories of (a), (b) and (c) and to some extent the burden of the exchange difficulty will be lightened to the banks by the restrictions of exports, though those with money or securities at home will still look to them to buy their bills.

I cannot find any clear way of expressing myself, but it seems to me that a total restriction of exports coupled with free exchange would lead to exactly the same result as free exports coupled with total disability in affecting exchange and that in either case planters would have to look for financial assistance to their full requirement in the country itself if their industry is to be saved from ruin.

If this be so the two factors, on which the amount of assistance required by planters depends, are entirely beyond the purview for the planters themselves.

Of course I am aware that the amount of financial assistance required will bear some proportion to the total amount of the planting requirements, but even if that total be given accurately the proportion will be so indefinite as to make the total of little importance, except as being a figure that will not be exceeded.

I have been asked to collect the information as regards the total requirements of planters and a circular has been sent out by the Chairman, U. P. A. S. I., in order to secure this, but as the matter would appear to be one of urgency, I would point out that information as to approximate requirements can be obtained in two other ways both of which can be used to check the return asked for and both of which would indicate the limit to which financial assistance might be required :—

1. By application to the Banks, to find out what financial requirements of estate have been negotiated over a certain period.

2. By the export figures, which can be multiplied by the known costs of production.

The first figure might include the gross sale proceeds of Rupee Companies which, however, are not numerous, but it will not include finance through other channels than the Banks.

The second figure will not include the cost of upkeep on places that have been developed during the last two or three years.

At present I have no official intimation as to what views the Government of Madras hold on these matters and I go to the Planters' Meeting at Bangalore with no information that will allay the natural anxiety the planters' feel both as regards the future and as regards the attitude of the Government towards their difficulties.

I shall be glad if you will make it quite clear that the views I have expressed are on behalf of the Planters in Native States as well as of those in the Presidency.

Yours sincerely,

(Signed) E. F. BARBER,

The Hon'ble Mr. A. R. Knapp, I.C.S.,

Revenue Secretary to the Government of Madras,

Stone House Hill,

Ootacamund.

D. O. No. 7 G/17-3.

Revenue Secretariat,

Ootacamund,

Dated 16th August, 1917.

My dear Barber,—I am to acknowledge the receipt of your letter of the 10th of August, 1917, enclosing a letter from Nicolls, dated August 8th.

2. In reply I am to say that the Government, while appreciating your anxiety to lay before the forthcoming meeting of the U. P. A. S. I., a definite pronouncement on the subject of the financial position and prospects of planters, regret that they are not in a position to give any further undertaking than was conveyed in my letter of 1st August, 1917 to the Secretary, United Planters' Association of Southern India.

3. Of the four proposals put forward at the meeting held in Madras on the 30th and 31st May and communicated to Government in Mr. Norton's letter of the 27th of June, the first and second, which relate to Council bills, raise a question which it is not within the province of this Government to decide. The proposals have, as I have already stated, been laid before the Government of India. So far as this Government's information goes, it seems unlikely that either of the proposals can be adopted. Since the date of the planters' meeting in May, the Council bill allotment, so far from being increased, has been reduced. Again, the suggestion that a certain amount of Council bills might be ear-marked for estate requirements hardly seems feasible, inasmuch as the first call upon Council bills must be for the purpose of financing exports required for war purposes. The amount of such exports will necessarily vary week by week, so that the setting aside of any definite sum in Council bills for other purposes is impracticable. I may add that considerable doubt as to the feasibility of either of these proposals appears to have been felt by the Committee appointed by the meeting held in Madras to investigate the matter.

4. The proposal for the issue of currency notes of small denominations is also a matter upon which this Government is not in a position to make any pronouncement; from notices in the Press the matter is already before the Government of India, but the actual provision of notes must take time. I am to observe that, while such a step would no doubt tend to relieve currency difficulties, it is not apparent how it would be of special use to the planters or help them in the peculiar financial position in which they are placed.

5. There remains the proposal that the Government might make advances to exchange banks for the purpose of purchasing estate bills. In respect to this, the U. P. A. S. I. has already been informed that the Government must wait for the further detailed information which is being collected as to the amount, extent and nature of the financial aid which may be required. The letter from Nicolls suggests that sufficient information on the subject is already before Government, but I am to point out that in the correspondence forwarded with Mr. Norton's letter of the 27th of June two different figures were given, the letter itself placing the requirements at eight lakhs a week, while the report of the Committee placed the figures at five lakhs, neither was based on exact information.

6. Regarding the assistance which the banks are likely to be able to render, the information is similarly incomplete. At the meeting in May a representative of one bank suggested that, if the Government would provide the money required, his bank would be prepared to set it aside for purchasing estate bills, and it may perhaps be assumed that other banks in the Presidency would be the same; but there is as yet no information on the most important question, *viz.*, how far the planters' requirements are likely to be met by banks from their own resources. As the Government understand the matter, planters may ask to be assisted in one of two ways:—

(a) directly, by loans to those who have come to the end of the resources; or

(b) indirectly, by the purchase of bills from planters who have funds in England which they are unable at present to bring out to this country.

Until the position of individual planters has been ascertained in the enquiry which is now going on, it is obviously impossible to determine how far the banks themselves are likely to be able to meet the planters demand under both these heads and how far Government assistance should be invoked.

7. Lastly, I am to assure you that the Government fully recognise the different financial position in which the planters of Southern India have been placed by conditions arising out of the war and you may be assured that they will give their best and most sympathetic consideration to any suggestions for remedying that position. It will, of course, be readily understood that the Government cannot pledge themselves to action which may be beyond their powers or which the further information which is being collected may show to be inappropriate, but they certainly desire to do all they can to assist. In the only case in which direct application from an individual planter for assistance has reached Government, orders were sent to the Collector of the district by telegram to make an advance sufficient for the immediate necessities of the case.

Yours sincerely,

(Signed) A. R. KNAPP.

To
The Hon'ble Mr. E. F. BARBER,
Ootacamund.

No. 2988.

RESOLUTION NO. VI/A.

From Major E. H. S. James, I. A.,

Secretary to the Chief Commissioner of Coorg.

To The Secretary, United Planters' Association
of Southern India, 25, South Parade, Bangalore.

Dated Bangalore, 13th September, 1917.

Sir,—I am directed by the Chief Commissioner to acknowledge, with thanks, the receipt of your letter dated the 8th September, 1917, forwarding a resolution placing on record the appreciation of the Coorg Planters' Association under the heading of "Roads and Communications."

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) E. H. S. JAMES, MAJOR,

Secretary to the Chief Commissioner.

Yendayar Estate, Mundakayam P. O.,

22nd September, 1917.

THE EDITOR,

The Planters' Chronicle, Bangalore.

Sir,—The Editor of the *Madras Mail*, when publishing a letter from me on the 15th instant, left out a part of it and I shall be obliged if you can find room for same in the *Planters' Chronicle*.

I wrote:—"The concluding and by far the most important part, including as it did the three planting questions of the hour,—Shipping, Finance and Indian Defence Force, of the Bangalore Meeting was not published in the *Madras Mail*. I suggest that in future arrangements should be made for the *Madras Mail* to publish, if necessary at U.P.A.S.I. cost, a supplement at the end of each Meeting giving the full week's proceedings. The

unfortunate feature of planting in Southern India is that the industry is not, apparently, as in Northern India and Ceylon, of sufficient importance to obtain from Government and the Press the consideration which—not only on account of the capital invested and the energy and enterprise shown, but also, on account of the large number of Indians employed on liberal terms—I am bold enough to think it deserves."

"X," in one of his interesting letters to the *Madras Mail*, suggested that the proceedings of the Annual Meeting should be published as a supplement to the *Planters' Chronicle*. This would not altogether meet the case as the *Chronicle* is only read by planters, and the carefully thought out speeches made in open meeting last month on such subjects as Indian Defence Force, Prohibition of Imports of Tea into India and the Hassan-Mangalore railway were not made for the sake of convincing the Meeting, which had already discussed them in Committee, but were made in the hopes that, published in the *Madras Mail*, they would at least attract official attention.

Yours faithfully,

J. J. MURPHY,

Bolloor Coffee Works, Mangalore.

24th September, 1917.

THE EDITOR,

The Planters' Chronicle,

Bangalore.

Prohibition of Coffee.

Dear Sir,—Further to our letter on this subject, in the *Madras Mail* of 21st instant, we beg to say that, we have just had the following cable from one of our London friends, viz., Messrs. E. Latreille & Son, of 263, Gresham House, Old Broad Street, E. C. The cable is dated 20th instant and reads:—

"Saldanhas, Mangalore

"Controller finally refuses tonnage further London efforts useless recommend planters protest vigorously.—Latreille "

which speaks for itself.

May we, accordingly crave the hospitality of a small amount of space in the next issue of your esteemed Weekly, with which to reach the wide circle of planters in India with this message, which calls for a strenuous continuance of the vigorous efforts they have been already putting forth in the matter? The question of prohibition evidently resolved itself recently into, as it were, a duel between the Indian Government on the one side and the Home Government on the other, with the result that, our Government carried the day in insisting on the Home Government allowing 50% of the past season's total Indian crop to be imported. The question at present is about the Shipping Controller allotting the tonnage required for the balance of this crop and to that gentleman's melancholy trifling with our interests would now our efforts have to be seriously directed through the Government of India, if what the latter have already obtained for us is not to be rendered a mere nullity, in reality.

We are, dear Sir,

Yours faithfully,

A. J. SALDANHA & SONS.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 40.] OCTOBER 6, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Director of the Labour Department has asked us to make the following announcement :—" Mr. C. S. Prince, Superintendent at Nagercoil has been called up for general service under the I. D. F. rules. He had to report himself at Cannanore immediately. Arrangements are being made for carrying on his work. The Director will spend as much time as he can at Nagercoil and in the vicinity till Mr. Prince returns."

The Scientific Department publishes the Pest Act lately passed by the Mysore Durbar. All Planters will heartily congratulate Dr. Leslie Coleman, on the success of his advocacy.

The Scientific Department also publishes an extract on Agricultural Co-operation in Canada taken from the International Review of Agricultural Economics.

Very interesting, too, will be found the Agricultural Statistics taken from the Agricultural Statistics of India Vols. I and II for 1915-16.

We publish the continuation of Coffee Planting for Profit, for which we are indebted to *Tropical Life*.

A short article by J. P. Ugarte on the Improved methods of the Hulling of Cherry Coffee has been sent to us by the author.

Three answers are published to the three resolutions that were passed at the Annual General Meeting.

The Manager, National Bank of India, writing on the 29th ultimo says : " I have the pleasure to inform you that I have this day received advice by wire from my Head Office in London that the net profits of the Bank for the half year ended 30th June last including the sum brought forward £106,689 amount to about £250,460. The Directors have declared an interim dividend of 16% per annum carrying forward £170,460."

SOUTH INDIA PLANTERS' WAR FUND.

	RS.	A.	P.
Amount previously acknowledged ...	66,436	8	2
Mr. A. J. Wright, Munnar ...	20	0	0
Mr. Campbell Hunt ...	30	0	0
Mr. Stephen Bayley ...	10	0	0
Total Rs...	66,496	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

The Pest Act in Mysore.

The Mysore Durbar on 30th September passed Destructive Insects and Pests Regulations and Dr. Leslie Coleman, the Director of Agriculture, who framed the Bill and has been mainly responsible for its passage, and the Mysore State are to be congratulated on being the first in the field in India with legislation of this nature bringing them into line with America and Europe where such Acts have long been in existence. We shall watch with great interest the working of these Regulations when they are put into force in Mysore.

We are indebted to the *Madras Mail* for the following text of the Bill and account of the proceedings.

In the Mysore Legislative Council, Mr. M. Kantaraj Urs, the Senior member and officiating President, moved that the report of the Select Committee on the Bill to prevent the spread of plant disease, together with the Bill as amended by them, be taken into consideration.

The following is the full text of this small but important measure, as amended by the Select Committee:—

Whereas it is expedient to make provision for preventing the spreading of plant disease; His Highness the Maharaja is pleased to enact as follows:—

1. This Regulations may be called the Destructive Insects and Pests Regulation—

It shall extend to the whole of Mysore and it shall come into force at once.

2. In this Regulation, unless there is anything repugnant in the subject or context; (a) "crops" includes all agricultural or horticultural crops and trees or bushes or herbs, the fruit or any other part of which is used for food of man or beast or for any purpose in connection with art or manufactures; (b) "notified area" means any specified area or locality declared by Government to be infected with a plant disease under section 3; (c) "plant disease" includes any disease affecting trees plants, vegetables and crops caused by or consisting of the presence of any insect or fungus and any other disease affecting trees, plants, vegetables or crops which the Government may from time to time by a notification in the official *Gazette* declare to be a plant disease within the meaning of the Regulation and whether or not caused by or consisting of the presence of any insect or fungus.

3. Government may by notification in the official *Gazette* declare any specified area or locality within Mysore to be a place infected with a plant disease in respect of any specified crop during a period to be fixed in such notification.

4. Government may by notification in the official *Gazette* make rules or orders for all or any of the following:—(1) For the seizure, inspection, disinfection or destruction of any crops in respect of which a notification has been issued under Section 3 or of any article which may have been in contact or proximity thereto, and for regulating the powers and duties of the officers whom it may appoint in this behalf; (b) for prescribing or regulating the treatment removal uprooting, destruction or disposal of crops within a notified area and for providing for payment of compensation in

proper cases ; (c) for prescribing and regulating the cleansing and disinfecting of infected places or areas or parts thereof ; (d) for prescribing the period within which it will not be lawful to plant or re-plant with any crop whatsoever or with any particular kind of crop the whole or any portion of a notified area ; (e) for prohibiting or regulating the movement temporarily of crops earth soil manure or other things into or out of a notified areas and (f) generally for the preventing in any manner of the spread within the State of any plant disease.

5. For every breach of a rule or order made under this Regulation the offender on conviction by a Magistrate shall be liable to a fine not exceeding Rs. 500. Provided it shall be within the discretion of the Magistrate to discharge the offender with a warning in the case of a first offence.

6. No suit, prosecution or other legal proceeding shall lie against any person for anything, in good faith done or intended to be done under this Regulation.

The points emphasised by the President in moving the consideration of the Bill were that it was desirable that not only should the area infected be notified under Section 3, but that the particular crops infected should also be notified ; that Government should have power to compensate the owners of crops ordered to be destroyed under this Regulation for the purpose of preventing the spread of any disease of a virulent character, where the crops so destroyed are not themselves infected ; and as the people are not familiar with the remedial measures to be adopted, the Select Committee were of opinion that the first offence should be more leniently dealt with by the Magistrates. It has also been recommended to Government that in view of the highly technical nature of the measures that have to be adopted in working the Regulation, it is necessary that before declaring any area as infected under Section 3, the views of the raiyats in the area should be taken through the Deputy Commissioner concerned, and that if possible local demonstrations should also be held, to show to the people the baneful effects of the disease and the remedial measures proposed to be taken to overcome the same.

The petition from the Malnad Landholders Association, protesting against the passing of the Bill, was then considered and the sense of the Council was that all reasonable safeguards had been provided.

Mr. Kantaraj Urs, then moved that the Bill as amended be passed into law. Mr. Seetharamiah seconded the motion, which was carried, and the planters and agriculturists of Mysore generally now have the Pest Act for which they have been asking for some time, and in which Dr. Leslie Coleman, the Director of Agriculture in Mysore, has been much help to them.

Agricultural Co-operation in Canada.

The following is extracted from the *International Review of Agricultural Economics* published by the International Institute of Agriculture, Rome, No. 3 (1917). Substitute Coffee and Tea for Wheat, and what a dream prospect opens, yet why not could only planters in this country make up their minds to co-operate.

"The agricultural year 1915-1916 was exceptional in Canada in the three respects of high yield, the quality of the crops, and the high selling price of grain. These favourable conditions have allowed the three great co-operative organisations of the Western Provinces to develop their interior activity, to realise enormous profits, and consequently to gain an enormous amount of support in agricultural circles.

"In the whole world there is nothing comparable to these three organisations.—The Saskatchewan Co-operative Elevator Company, the Grain Growers' Grain Company in Manitoba, and the Alberta Farmers' Co-operative Elevator Company. They include at the present moment more than 48,000 shareholders; the total sum of their assets exceeds 8,000,000 dols., and their paid-up capital in shares is about 2,000,000 dols.

"Last year 90,000,000 bushels of grain, or about a third of the total quantity produced in Canada for the market, passed through their hands. Their profits are represented by hundreds of thousands of dollars. The Manitoba Company realised last year a profit of 775,000 dols., the Saskatchewan Company one of 757,000 dols., the Alberta Company one of 282,000 dols. Their combined profits amounted, therefore, to 1,814,000 dols.

"The three companies now own or work more than 500 local elevators. Including the buildings now in course of construction they dispose, or will do so shortly, of a storage capacity of more than 5,000,000 bushels,

"It is fair to note that the development of agricultural organisation in the Prairie provinces is largely due to the perseverance and the sane commercial and financial methods, shown in the management of the Manitoba Grain Growers' Grain Company. These were the best means of advancing the cause of union and co-operation among the farmers.

"It is also apposite to recall that these companies enjoy no special privileges. They compete with the purely commercial companies, and the tariffs they apply to the handling of grain are fixed either by the Canadian Grain Commission or by the Winnipeg Corn Exchange, which control them. Their activity and their success are, therefore, the more remarkable and are proof of the excellency of their methods. The figures representing profits which we have given are far from affording an accurate idea of the advantages which farmers derive from this organisation. The departments for co-operative provision, which allow a farmer to procure the products and other foods he needs almost at cost price, without the intervention of middlemen, mean an enormous economy to farms. Wood, wire, coal, repers, agricultural machines and tools, are thus provided to their members by the companies in increasing quantities. The Manitoba Company has even bought vast extents of forest land in order to command the timber needed by its members, which it cuts down and markets itself. The sale of agricultural products other than grain by these companies is becoming increasingly important.

"It is therefore not surprising that the report of the Manitoba Company concludes with a very promising forecast.

"If the shareholders and those whom they have placed in charge of the respective companies' business remain true to the principle and ideal which brought them into existence, they cannot fail to increase in the right direction their power and influence in the commercial life of Western Canada. While it is always dangerous to enter the realm of prophecy, it is not too much to expect that within the next ten years the farmers of Western Canada, will be operating their own sawmills and their own flourmills, possibly their own coalmines and meat packing plants, and may be caring for their own fidelity and fire insurance.

"The decision taken at the respective general meetings of the Manitoba Grain Growers' Grain Company and the Alberta Farmers' Co-operative Elevator Company to merge themselves into a single company which will be known as the "United Grain Growers" represents a fresh step towards the unification of agricultural organisation and co-operative action. The new

combination will have a capital in shares of 5,000,000 dols. The eventual aim seems to be the concentration in one organisation of all the three great companies of Western Canada, but hitherto the Saskatchewan Company has not considered the question of merging itself in the other two."

Agricultural Statistics.

We often receive enquiries as to the acreage planted in different crops in India and the following table is an attempt to answer this question as accurately as possible. The figures have been taken from *The Agricultural Statistics of India Vols. I & II for 1915-16*, published by the Director of Statistics, with the exception of the Rubber figures which have been compiled from another source.

	British India.	Madras Presidency.	Coorg.
Total area ...	619,522,000	97,837,280	1,912,200
Area under Forest ...	85,079,000	13,013,547	357,418
Area not available for cultivation..	143,930,000	22,599,192	334,235
Culturable Waste ...	113,820,000	11,029,617	10,297
Fallow Land ...	51,731,000	8,443,525	170,163
Net area cropped ...	221,778,000	34,448,793	140,157
Irrigated area ...	46,898,000	9,974,131	4,134
Area under Rice ...	78,680,000	11,229,635	82,993
Area under Sugarcane ...	2,551,000	94,623	33
Total area under Food crops ...	214,594,000	30,973,426	88,874
Area under Oil seeds ...	14,236,000	2,731,277	377
Area under Cotton ...	11,435,135	2,060,376	3
Area under Tea ...	593,364	26,225	100
Area under Coffee ...	91,003	48,441	42,424
* Area under Rubber (Hevea) ...	—	12,695	1,549

	Mysore.	Travancore.	Cochin.
Total area ...	17,483,566	3,618,597	644,302
Area under Forest ...	2,248,927	633,320	74,552
Area not available for cultivation..	6,673,015	363,389	131,847
Culturable Waste ...	890,175	523,892	5,743
Fallow Land ...	1,427,147	148,691	432,160
Net area cropped ...	6,244,302	1,949,305	—
Irrigated area ...	934,563	892,125	156,996
Area under Rice ...	698,861	799,984	206,864
Area under Sugarcane ...	34,317	6,958	47
Total area under Food crops ...	5,300,231	1,142,451	259,764
Area under Oil seeds ...	343,386	153,664	14,430
Area under Cotton ...	110,398	2,046	1,010
Area under Tea ...	—	63,489	—
Area under Coffee ...	122,508	7,778	2,519
* Area under Rubber (Hevea) ...	115	22,103	8,008

* To this must be added at least 5000 acres in the hands of native growers in Travancore.

Areas of Tea, Coffee and Rubber are distributed as follows:—

		Tea.	Coffee.	Rubber.
		acres.	acres.	
BENGAL—				
Jalpaiguri	...	101,300	...	...
Darjeeling	...	53,200	...	...
Chittagong	...	4,500	...	...
Chittagong Hill Tracts	...	100	...	...
MADRAS—				
Vizagapatam	...	...	120	...
Salem (Shevaroy Hills)	...	...	8,028	800
Coimbatore	...	...	442	990
Trichinopoly	...	...	46	...
Madura	...	...	5,059	...
Tinnevely	...	...	609	...
Nilgiris	...	13,977	24,026	390
Malabar	...	13,083	5,725	10,517
South Canara	...	...	30	...
BOMBAY—				
Satara	...	20	4	...
Kanara	...	...	46	...
AGRA—				
Dehra Dun	...	5,295	...	...
Almora	...	1,847	...	...
Garhwal	...	942	...	...
BIHAR AND ORISSA—				
Ranchi	...	2,100	...	...
PUNJAB—				
Kangra	...	9,850	...	...
UPPER BURMA—				
Bhamo	...	...	60	...
Myitkyina	...	14	...	...
Katha	...	329	...	...
Ruby Mines	...	50	10	...
Upper Chindwin	...	1,392	...	...
ASSAM—				
Cachar	...	60,452	...	...
Sylhet	...	83,696	...	...
Goalpara	...	697	...	...
Kamrup	...	3,075	...	...
Darrang	...	45,815	...	...
Nowgong	...	12,546	...	...
Sibsagar	...	90,727	...	...
Lakhimpur	...	79,040	...	...
MYSORE—				
Mysore	...	...	624	...
Hassan	...	...	34,466	...
Shimoga	...	...	179	...
Kadur	...	...	87,234	...

RUDOLPH D. ANSTEAD,

Dy. Director of Agriculture, Planting Districts.

COFFEE.

Coffee Planting for Profit.

COFFEE IN THE BELGIAN CONGO.

Monsieur Mertens, head of the Agricultural Station at Lula, Stanleyville, published some interesting notes on Coffee and its culture, especially about robusta, which is supposed to be, and we believe is, indigenous to the Congo. In these notes the question of selection enters very largely, and it is this point that interested us the most, for it is an age of selection the world round from choosing between the Kaiser and his Huns *versus* civilisation, or an equally worthless plant in the Tropics that must be made away with or improved out of recognition in order to be supplanted by something worth having.

There are many varieties and sub-varieties of coffee in the Congo, and many pests and enemies as well. Such facts alone draw one, therefore, to M. Mertens's notes, as the most cursory glance at them shows what a lot of information they contain. Jotting down the names of the different varieties as they come we find: *Coffea dewevrei*, *C. excelsa*, *C. liberica*, *C. arnoldiana*, Uganda coffee, *C. klainii*, *C. aruwimiensis* and its sub-variety, *Wanie-rukula*, and *C. canephora* and two sub-varieties, *Kwiluensis* and *Sankuruensis*, *C. robusta*, with two varieties *Kali sepandjang* and *Java*, whilst *C. liberica* and *C. arabica* are also discussed. What real difference exists in these kinds we are not prepared to say, but are inclined to place all the kinds under three or four heads only, and put down any further variations to locality and climatic conditions &c.

Before going on to other matters we will glance at the following table showing the difference that exists in the weight of cured coffee to that of the green produce as picked from the trees. According to these figures, it is necessary to gather, transport and handle 12 kilos with *C. liberica* in order to obtain 1 kilo of the coffee of commerce, whilst Uganda coffee requires only 3.6 kilos, and several others 3.8 kilos only. Here are the figures:

	Kilos.
<i>C. canephora</i> var. <i>sankuruensis</i>	4.7
<i>C. canephora</i> var. <i>kwiluensis</i>	3.8
<i>C. canephora</i>	3.8
<i>C. robusta</i> var. <i>kali sepandjang</i>	4.2
<i>C. robusta</i> of Java	3.8
<i>C. kwilu</i>	3.6
Uganda Coffee	3.6
<i>C. excelsa</i>	5.5
<i>C. dewevrei</i>	8.3
<i>C. liberica</i>	12.0
<i>C. aruwimiensis</i>	6.7
<i>C. arabica</i>	5.1

The great difference shown above makes one feel how necessary it is not to buy "a pig in a poke," but to make sure that, whatever variety you finally select, it gives you the highest net yield per tree of cured coffee, and not merely a great show as you pick the cherries from the tree. The larger the loss in weight, the greater the trouble and expense in preparing the berries for market and getting rid of the residue. These are but two or three of several points that the would-be planter has to settle before he makes the plunge and invests his capital and time in the undertaking of

coffee-planting for profit and not for loss. The Congo authorities are undoubtedly up against this very problem, and are doing their best to evolve a type capable of yielding a remunerative crop of good quality and aroma which is, at the same time, more resistant than other kinds to disease and pests. This work of selection has been going on for some time, but the station at Lula, from where M. Mertens writes, has not been established long enough to allow any definite choice to be made, or even to discuss which variety is likely to become the favourite.

Pests seem to be rampant and to cause much anxiety to the Congo planter. Liability to attack from one or other of these might cause a variety of coffee to be a failure in the Congo and a success elsewhere. On the other hand, immunity from pests, &c., might cause the Congo to give preference to a kind which otherwise would not be cultivated as it gives less satisfactory results "in the cup." It all, however, comes to the old rule at the beginning: Choose the kind that gives you, the planter, the best return in the midst of all the advantages and disadvantages with which you are surrounded, and pay more heed to the latter than the former, as at times drawbacks increase, or are worse than is apparent at the start, whilst if the advantages increase no one will grumble at that.

First the Congo has to contend with the *Hemileia*, and the little *Coleoptera*, known as *Stephanoderes coffeæ*, which has been so troublesome in Uganda. Lately a leaf-rust has been giving increasing trouble, and is said to be due to *Colletotrichum coffeæ* (Masse). Page 293 of these notes tells us that among the coffee under shade totally different varieties of trees were attacked by *Hemileia*, which once more proves that shade encourages this pest.

It is with regard to this question of shade that M. Mertens writes in fullest detail, discussing which-shade trees give the best result, and when much, little or no shade is preferable. We have not, unfortunately, the space necessary to reproduce the tables given, but should like to have done so, as they show the number of plants per hectare, the age of the trees, whether heavily or lightly shaded or not shaded at all, and finally, the yields obtained (1) of green coffee; (2) of the berries as shipped. It will be, however, quite easy for anyone to study M. Mertens's report in the original, as he is very explicit.

Another matter on which useful data, but not comparative tables, is given, is the question of topping the bushes, even to such an extent as to keep them low enough to gather the whole of the crop from the ground. So many photographs that we have seen from time to time show the bushes to have run up to an untidy, unreachable height, and at the same time to have sent out straggling untidy branches all round, covered, may be, with flowers or fruit. Such plants must be less remunerative than well-pruned bushes to pick, and they certainly are ugly to look at, and expensive and often impossible to pick to advantage, whilst the rank growth and consequent inaccessibility to all portions of the plants encourage pests, and renders it more difficult to check them when they do come. Whatever may be said in favour of such rank untidy growth, and however remunerative the crops from them may prove to have been, we would still try what pruning back and topping a batch of trees would result in, whilst leaving the bulk to their own devices until we can prove that new (pruned) bushes were the best all round. On any coffee estate surely the branches, if not the leaf-tips, should be far enough apart to allow the labourer to pass through without having to hold his arms in the air and force his way, as must be done on many estates with rank-growing bushes.—*Tropical Life*.

The Hulling of Dry Cherry Coffee.

IMPROVED METHODS.

By J. P. Ugarte, Author of "*The Cultivation and Preparation of Coffee for the Market.*"

In the treatment of coffee one of the most important operations, and at the same time that upon which the price depends, is the hulling. There are many systems of hullers existing in the market more or less reliable, and although machines most scientifically designed have been produced in the past, none of them has met with the various conditions of the coffee.

Up to now it has been found that coffee not properly dried when treated in the average huller became damaged and disfigured, because, being in a leathery condition when not properly dried, the elasticity of the beans is such that they could be twisted to a certain extent, whereby they not only become unsightly in appearance, but in the grading operation they disclosed a further depreciation.

To ascertain when the beans have reached the degree of dryness desired is not by any means an easy matter when coffee is dried in the cherry, for, although cherries may all appear the same size, yet they may differ considerably in texture, some cherries possessing a higher percentage of pulp than others, especially when grown at altitudes below 2,000 feet. This fact has led manufacturers of coffee machinery to be faced with the necessity of designing a huller which would be able to hull the coffee although the cherries may not be absolutely crisp, a requisite which was invariably essential up till now in all coffee hullers.

With this end in view, that is to say, for the purpose of putting upon the market a huller which would be able to hull the coffee perfectly irrespective of the fact of its not being absolutely dry, I have noticed that a series of improvements have been introduced in one of the standard machines. These improvements combine all those points which up to now other hullers lack, thus rendering this particular machine suitable, not only for coffee absolutely crisp, but also for treating dry cherry coffee which may not be in the condition demanded by the average coffee huller.

It is very interesting to note that the machine in question does not damage the coffee—at least, the percentage of damaged beans is insignificant. The advantages, therefore, of this new and improved huller are such that the planter need not go so far as to dry his coffee until it loses, I may say, an unnecessary percentage of moisture, thus rendering the cherries in such a condition that, when put into the average huller, the percentage of breakage would be large. I noticed in Central America, where the operation of hulling in the dry cherry is a common one, an important planter, who during the day's work, obtained not less than fifteen bags of practically ground coffee through the use of a huller of English manufacture and I understand that similar results are experienced by some in Uganda. This coffee was practically unsaleable, but the planter did not object to such results, as he thought there was no other huller in the market but the one he was using.

In the average dry cherry huller anything from 10 per cent. to 17 per cent. offbreakage occurs, which is very large indeed—that is, when coffee is properly dried, for, if over-dried, an additional 10 per cent. breakage, or perhaps more, would be experienced. It was, therefore, with the object of obviating this serious loss to the planter that some new improvements, after carefully investigating the defects, were made, thus rendering this improved machine the only perfect huller on the market for dealing with dry cherry.

CORRESPONDENCE.

Answers to Resolutions.

RESOLUTION NO. XVII.

The Madras Fire Insurance Agents' Association,
15, Armenian Street, Georgetown, Madras, 25th Sept., 1917.

The Secretary, United Planters' Association of Southern India,
25, South Parade, Bangalore.

Fire Insurance on Tea Factories.

Dear Sir,—In further reply to your letter of the 13th instant with resolution urging reduction of rates to the level of the Ceylon Tariff my Committee desires me to say that a similar suggestion was forwarded to the Fire Offices' Committee, London, at the close of last year but that body decided not to alter rates. The suggestion had my Committee's support.

Looking to the facts that it received attention at Home extending over several months and that the decision is so recent, my Committee does not see its way to do more at present than forward the Resolution passed by your Association.

I am, dear Sir,

Yours faithfully,

(Signed) —THOMAS, *Secretary*.**RESOLUTION NO. XII.**

Government of His Highness the Maharaja of Mysore,
General and Revenue Secretariat.

No. R. 3292/L. R. Bangalore, dated 25th September, 1917.

From B. Ramaswamaiya, Esq., B.A., B.L.,

Officiating Secretary to the Government of His Highness
the Maharaja of Mysore, Revenue Department.

To Fletcher Norton, Esq.,

Secretary, United Planters' Association
of Southern Indian, No. 25, South Parade, Bangalore.

Sir,—I am directed to acknowledge the receipt of your letter of the 13th instant addressed to the Dewan of Mysore, forwarding the resolution passed at the Annual General Meeting of the Association on the subject of Land-tenures and Title-deeds in Mysore and to state that the matter will receive due attention.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) M. S. RAMACHENDRA RAO,
for Offg. Secretary to Govt., Rev. Dept.

RESOLUTION NO. VI.

No. 581/D. Government of Madras, Public Works Department.

From the Hon'ble Mr. S. B. Murray,

Joint Secretary to the Government of Madras.

To the Secretary, United Planters' Association of Southern India,
25, South Parade, Bangalore.

Dated Ootacamund, the 21st September, 1917.

Sir,—I am directed to acknowledge the receipt of your letter dated 8th September 1917, on the subject of the Anamalai Ghat Road.

I have the honour to be

Sir,

Your most Obedient Servant,

(Sd.) W. B. MOLESWORTH, for Joint Secy. to Govt. P.W.D.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 43.]

OCTOBER 27, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Scientific Department re-publishes an extract from a paper read by Mr. W. H. Sprott, Chairman, U. P. A. S. I. in 95-96, 99-00 and 05-06 on spraying of coffee which will be found interesting and Mr. Pearse adds to our store of knowledge through the results of experiments made by him.

We publish the Proceedings of a meeting of the West Coast Planters' Association. The delegates Messrs. Lescher and Morrell read their report on the U. P. A. S. I. Annual Meeting.

Our weekly article on Markets, Prices and Statistics appears as usual.

We publish the excellent speech made by Mr. Pinches at the Annual Meeting of the U. P. A. S. I. Unfortunately his health prevented his going to Calicut to meet H. E. the Governor of Madras and personally represent and expand the planters views of the Indian Defence Force, but we believe the matter was laid before H. E. It will greatly add to the force of his arguments if specific cases of the hardship and expense to which individual planters have been put are collected with which to confront the Officer Commanding the 9th Division.

In our Correspondence column will be found an interesting letter from Mr. J. J. Murphy on the re-organisation of the U.P.A.S.I. The best idea is that all planters, not some, will put their views before the community for all planters we are convinced have the interest of the Association at heart: but we are equally convinced that the Labour Department is the Foundation Stone of the Association.

We publish a notice from the Director of Agriculture which should be supported.

We publish a G. O. on the Indian Destructive Insects and Pest Act 1914.

A very interesting statement on Coffee Exports is published to September 30th, 1917.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged ...	66,496	8	2
Mr. H. Waddington ...	30	0	0
Messrs. Barber & Pascoe ...	75	0	0
Total ...	66,601	8	2

SCIENTIFIC DEPARTMENT, U P A S I.**Spraying of Coffee.**

On looking over some old records we have come across the following account of early efforts to spray coffee with Bordeaux Mixture to mitigate the attacks of Leaf Disease. At a Meeting of the U. P. A. S. I., the fourth of its kind, held in August 1897, Mr. W. H. Sprott read a paper on the subject in the course of which he said :—

" I have been told that it might interest and perhaps be of some use to the members of the U. P. A. S. I. if I put down a few notes about the spraying with Sulphate of Copper and Lime, which we have been carrying on on our group of estates for the last six years. You must please to bear in mind that I know nothing about science and have not the pen of a ready writer, and all I can give are a few practical facts from my own observations. I am so convinced of the utility of spraying, that we have gone on steadily increasing the number of our machines and the area done every year, and now have a dozen of them at work on our different estates. In the autumn of 1891, Mr. H. A. Mangles sent me out two of the Eclair Knapsack sprayers, and suggested we should try the effect of the Bouille Bordelaise, which has been so successful in checking the Phyloxera in vines, and the potato blight. I started to try it in January, 1892, using 4 lbs. sulphate of copper and 4 lbs. lime to 25 gallons of water. I have since found that the addition of a double handful of common refuse jaggery makes it stick better and last longer. It was rather late in the season, but I started spraying round some patches which had leaf disease, and it certainly seemed to stop it spreading. I started again as soon as we got a little fine weather after the monsoon, beginning on an exposed ridge where leaf disease always shows up first, and had a long strip sprayed all along the ridge. It was mostly done a second time about October, and leaf disease did it very little harm that year. Since then we have done this ridge every year, as soon as possible after the monsoon, and sometimes twice, with the result that the Coffee has improved and thickened, and though the coffee is over 30 years old, it crops better and looks stronger and more vigorous than it was ten years ago. We have kept on steadily doing those parts where leaf disease usually appears first, and where it has been taken in time, that is, before the leaf disease has appeared, the attacks though not entirely prevented, have been very mild, and not done much damage on these parts. Every planter knows that there are certain parts of the estate, where disease appears year after year, chiefly exposed ridges or edges of roads, before other parts, and which are nurseries to breed it. By spraying these, I am sure a great deal of disease can be prevented, and the poor pieces benefited. I believe the late Mr. Pringle gives the average life of a coffee leaf as 4 months, but I have often seen leaves looking strong and healthy in May that were sprayed in August and September. Nurseries too, often suffer from leaf disease, and it will be found very beneficial to spray them two or three times with a weak solution and to thoroughly spray them shortly before they are put out or else to dip the leaves in a bucket containing the solution, after they have been dug up. This saves the plants to a great extent from the severe attack of leaf disease, which they so often get after the end of the monsoon, but care must be taken not to make the solution too strong, or otherwise it will burn the tender shoots. About two-thirds of the quantity

previously given is enough. I saw this very strikingly illustrated on one of our estates about 3 years ago. Our plants had been dipped in the solution as they were taken out of the nursery, and had been sprayed some time before. Our neighbour's plants all round had a severe attack of leaf disease, but ours were not touched and were very successful."

"It is, of course, impossible without a large number of machines to spray all parts in time before leaf disease appears, or to do it so thoroughly that none will appear but the spraying seems to lessen the effects of the disease, and wherever the solution touches the disease it kills it. The disease often appears on leaves which have been sprayed, but it was probably of a much lighter colour than usual, and has fewer spores and the leaf does not fall off. I was told by a Nilgiri planter that he had been using the solution very successfully for rot, but have not tried it much myself, as the difficulty is to apply it during the monsoon. I think a very appreciable difference can be made in the effects of the disease by spraying, but it must be remembered that the time to do it is before the disease appears, to get the full benefit of it, and that it should be done a second time if possible. Half an hour's sun will dry the solution on the leaves and it will stop there for months on the underside of the leaf. It is quite easy to spray so that the underside of the leaf is touched."

Mr. Sprott stated that four coolies with three sprayers if water was within reasonable distance could easily spray half an acre of coffee in the day and he put the cost down at Rs. 7 per acre, copper sulphate then being 19s. a cwt. f. o. b. England, but he remarked that of course the cost varied with the water facilities and the character of the land and coffee. With the improved type of pressure sprayer now on the market the work is easier and can be done more thoroughly.

At the last meeting of the U.P.A.S.I., during the course of his lecture on the treatment of fungoid diseases the Deputy Director of Agriculture, Planting Districts, referred to some experiments which had been carried out in spraying designed to discover what the actual loss of coffee crop was when attacked by Black Rot. It is interesting to note that these experiments were conducted on the same estate as those described above and by Mr. F. H. Sprott. The following details of these experiments which have kindly been forwarded to us for publication by Mr. G. R. Pearse may prove of interest to planters:—

"The spraying was done between 1st and 25th July 1916 on four different bits of the estate totalling over 9 acres at an average cost of eight coolies per acre as water at that time of the year was readily available. About 3½ inches of rain fell during the period of spraying. Two of the sprayed portions situated nearly a mile apart, both mature coffee but varying considerably in age, appearance, growth, surroundings, and facing, were selected, and in each a small plot which we will designate A in the one and B in the other, was marked off for special experiment. In the unsprayed coffee adjacent to A and B two other plots as similar as possible in size, appearance, and crop to A and B respectively, and which we will call C and D were also marked off. A and C each contained 20 trees, B contained 24, and D 25 trees. These four plots were weeded and the soil scraped clean."

"The first experiment was made with the object of comparing the loss of crop due to the falling off of the berries. Every day from towards the end of August to the end of November each tree in these four plots was

gently shaken, the fallen berries collected and counted, and the ground was then swept clean of leaves, &c. Table I gives the number of fallen berries collected from each plot and the equivalent per acre, taking 1,200 trees to the acre and making due allowance for disparity in the number of trees in each plot. The disparity in the amount of crop carried by each plot, however, has not been taken into consideration."

TABLE I.

Plot.	No. of fallen Berries		Equivalent per	Excess loss on unsprayed plots in berries per acre.	
	Collected.	Acre.	On each plot.	Average for whole.	
A. Sprayed ...	2260	135,600	74,400		
C. Unsprayed ...	2500	210,000	...		85,700
B. Sprayed ...	3800	190,200	97,000		
D. Unsprayed ...	5900	283,200	...		

"It would appear from this that the spraying may have been instrumental in saving about half a hundred weight of crop per acre and in this connection it must be noted that the season was one during which Black Rot was particularly light and that observation tempts one to assume that the falling off of berries increases largely with the virulence of the disease."

"The second experiment was conducted to compare the ripening and the quality of the crop which remained on the trees. Towards the end of January 1917, when ripening seemed sufficiently advanced, the plots were stripped. Table II shows the actual crop picked in seers and the equivalent per acre in bushels of 32 seers."

TABLE II.

Plot.	Actual crop stripped in seers.				Equivalent crop per acre in bushels of 32 seers.			
	Ripe.	Green.	Dry.	Total.	Ripe.	Green.	Dry.	Total.
A. Sprayed ...	23	4 $\frac{1}{2}$	1 $\frac{1}{10}$	27 $\frac{1}{10}$	43	9	1 $\frac{3}{10}$	58 $\frac{1}{10}$
C. Unsprayed ...	28	19	1	48	50	34	1 $\frac{3}{4}$	85 $\frac{3}{4}$
B. Sprayed ...	64	11 $\frac{1}{4}$	4 $\frac{1}{4}$	75 $\frac{1}{2}$	100	17 $\frac{1}{2}$	1 $\frac{1}{2}$	118
D. Unsprayed ...	36 $\frac{1}{2}$	20 $\frac{1}{4}$	2 $\frac{1}{4}$	59 $\frac{1}{2}$	55	30 $\frac{1}{2}$	4 $\frac{1}{4}$	89 $\frac{3}{4}$

"This table shows the tendency of sprayed coffee to ripen its crop more thoroughly and more quickly than unsprayed coffee."

"The third experiment was designed to compare the outturn and weight of the resultant clean whole crop. The whole crop of each plot was mixed and dried, still keeping the product from each plot separate. After

drying it was hand pounded, cleaned, and weighed and the results are given in table III in pounds."

TABLE III.

Plot.	Actual outturn.	Equivalent per acre.	Approximate weight per bushel.
A. Sprayed ...	9½	547	57
C. Unsprayed ...	14½	847	56½
B. Sprayed ...	26½	1306	58
D. Unsprayed ...	20½	966	57

"Here again the spraying shows to advantage and seems to produce a heavier sample."

Mr. Pearse concludes by saying. "To my mind the results are interesting and encouraging enough to merit further experiment and investigation."

The visible effects noticeable after spraying are :—

- (a) increase and more vigorous growth of wood, better colour and retention of old leaf.
- (b) the disappearance of Rot and freedom from leaf disease
- (c) more healthy ripening and less dying back of branches and crop
- (d) a better promise for the following crop."

I had the pleasure of seeing these experiments towards the end of December 1916 and other patches of sprayed coffee and it was then most noticeable how the sprayed patches stood out greener and fuller of foliage than the adjacent unsprayed coffee. Abundant traces of Bordeaux Mixture were still to be seen on the leaves though 60 inches of rain had fallen since they had been sprayed and no resin or adhesive mixture of any kind had been mixed with the spray material. Moreover there was a marked absence everywhere on the sprayed portions of the estate of that dying back of branches so troublesome in Coorg and possibly due to the attacks of another fungus altogether.

The only comments I have to make on these most interesting and instructive experiments are as follows: First of all the attack of Black Rot was, as indeed Mr. Pearse points out, an exceptionally light one, the loss of crop only amounts in the worst case, Plot D, to some 1½ cwts. per acre, out of a crop 9½ cwts. per acre, or about 15%. One often hears losses from this disease estimated at 30 to 50%. From the point of view of the experiments it is a pity that it was not a bad year for Black Rot and it would be most interesting to repeat the experiments in such a year.

With regard to the second experiment it will be noted that as far as plots A and C are concerned there is not much difference and what little there is is not in favour of spraying, but in plots B and D there is a considerable difference in favour of the sprayed plot. This is brought out more plainly if we calculate the percentage of actual crop picked to the possible crop had the fallen berries remained on the trees and ripened. This is shown in Table IV. In some experiments I carried out in Mysore in 1912 in collaboration with Mr. Pittock we found that ripe Coffee berries

ready to pick ran at 20 to the ounce or 320 to the pound and it is usually accepted that 200 sixty pound bushels of cherry give one ton of any marketable coffee and the figures below are based on this assumption.

TABLE IV.

Plot.	Crop per acre in lbs.			Percentage of crop picked of possible crop.
	Picked.	Fallen off.	Possible crop	
A. Sprayed ...	3336	424	3760	88.7
C. Unsprayed ...	5488	656	6144	89.3
B. Sprayed ...	7552	594	8146	92.6
D. Unsprayed ...	5744	885	6629	86.6

That spraying apparently produces a heavier sample was also found in the experiments conducted by Mr. Frattini in Mysore and it is most interesting to find that it also has a possible tendency to make the crop ripen more quickly and thoroughly. This is perhaps only to be expected from the fact that the sprayed trees retain more foliage up to crop time than the unsprayed and consequently are able to elaborate sap more effectively and rapidly.

RUDOLPH D. ANSTEAD,
Dy. Director of Agriculture, Planting Districts.

At the request of the Director of Agriculture, we published the following Notice which is the outcome of suggestions made by the Deputy Director of Agriculture, Planting Districts at the Annual Meeting and has been sanctioned by Government.

NOTICE.

A class for the training of estate writers in elementary Mycology and Entomology with special reference to anti-pest measures in connection with planters' crops will be held at the Agricultural College and Research Institute, Coimbatore, from January 7th to February 28th, 1918, provide that at least four candidates are forthcoming. The strength of the class will be limited to ten.

2. Candidates must be *bona-fide* employees on a planting estate and must be nominated by the proprietor or manager of the estate.

3. Application for admission to the class should be forwarded to the Principal, Agricultural College and Research Institute Coimbatore not later than November 30th.

4. No tuition fees will be charged and free quarters will be supplied. Candidates will be expected to join the students' hostel and to observe the College rules. Further details can be obtained from the Principal on application.

A. D. STUART,
Director of Agriculture.

DISTRICT PLANTERS' ASSOCIATIONS.

West Coast Planters' Association.

Proceedings of a Meeting (the 2nd of 1917) held at the Malabar Club, Calicut, on the 6th October, 1917.

PRESENT.—Messrs. Campbell Hunt (Chairman), A. H. Mead, A. C. Morrell, S. P. Eaton, H. Jeffrey, R. G. Norman, H. Waddington, A. H. Robb, R. Keane, L. E. Young, and R. Lescher (Honorary Secretary.) *Visitor*.—Mr. R. Ainsworth.

The Minutes of the last Meeting were confirmed.

352. On the proposal of Mr. R. Lescher seconded by Mr. Morrell the following two gentlemen were elected private Members of the Association:—Messrs. J. McIver and L. E. Young.

353. H. E. THE GOVERNOR'S VISIT TO THE WEST COAST.—It was decided to ask Mr. C. H. Browne to be good enough to represent the Association at Mangalore and if this gentleman could not oblige, Mr. S. P. Eaton kindly consented to do so. As regards the Calicut visit, it was left to the Chairman to decide whether a delegate could be sent; after it was known for certain whether a deputation of Planters was to be received in this Town.

354. The Report of the Delegates to the Annual Meeting of the U. P. A. S. I. (Messrs. A. C. Morrell and R. Lescher) was read:—

Mr. Chairman and Gentlemen,—The only subjects on which your delegates had instructions were to keep before the meeting, the Cochin Harbour Scheme and Freights. The Wynaad Planters' Association brought up the matter of the Cochin Harbour and your Delegates supported it. A letter has since been sent by the Madras Government to the Secretary U. P. A. S. I., saying that the improvement of the Cochin Harbour has now the attention of the Government.

FREIGHT.—When this matter came up we found that far from being able to ask for rates to be fixed, it was a matter of asking for freight as no ships were available at all, and that no Tea or Coffee had been shipped from Southern Indian ports for three months. In consequence the following resolution was proposed:—"That though this Association is aware that the statement recently made in Parliament by Mr. Montagu as to the question of export of Tea and Rubber from Tuticorin and Malabar ports not having been put before the Government of India does not appear to be in accordance with actual facts and though it appreciates the efforts made by the Government of Madras on behalf of the Planting community, it is of opinion that the interests of the community cannot be receiving the attention they deserve from the Government of India and the Ministry of shipping, and respectfully requests the Government of Madras to receive a deputation at a very early date from the United Planters' Association of Southern India with reference to tonnage from Madras, Tuticorin, and Malabar ports, for Tea, Coffee and Rubber to the United Kingdom." Since then we believe that some freight has been provided.

FINANCE.—There was a long discussion on this and the following amendment was finally carried "That in view of further information which has come to light since the finance meeting in May last at Madras, this meeting do leave the settlement of the finance difficulties of Planters to the Government of Madras on the advice of the conference, which the Government of Madras will call as soon as full information regarding planting requirements has been given.

That this Association do adopt and accept the finance requirements form already sent out and do endeavour to meet as fully as possible the wishes of the Government of Madras on this matter. Further that this Association shall consider any one who does not fill in and render this form as not requiring financial assistance through the help of Government."

MYCOLOGIST.—The Mundakayam Planters' Association brought up a resolution with regard to a Mycologist for rubber districts only, which is before the meeting to-day for discussion.

EXPERIMENTAL STATIONS.—There was a discussion anent the proposed experimental stations and a small committee was appointed to discuss the question of lease of buildings, land, &c., in connection with these, and hopes were held out that a start might be made with these next year.

The meeting also supported the efforts of the Indian Tea Association in forwarding the passing of a Fertiliser Act.

LABOUR.—The Meeting was informed that there was a proposal to do away with the Penal Clause of Act 13 of 1859 and the meeting opposed this.

This is all I think of interest to our Planters' Association but we shall be very pleased to answer any questions with regard to the business transacted that lies in our power.

(Signed) A. C. MORRELL, } Delegates.
(Signed) R. LESCHER.

On the proposal of Mr. A. H. Mead seconded by Mr. S. P. Eaton a vote of thanks was accorded to the delegates.

355. MYCOLOGIST FOR THE RUBBER PLANTING DISTRICTS.—Various correspondence under this heading was read and discussed. The Honorary Secretary had already circularised members as to whether they were prepared to support the scheme. It was the opinion of the Meeting that no definite answer could be given until further particulars were available both as regards the financing of the scheme and whether outside contributions are likely to be given. The following resolution was passed:—"This Association is in sympathy with the proposal of the Mundakayam Planters' Association as regards the appointment of a Mycologist for the Rubber districts of South India, but requires further details as to finance before giving any definite answer. It would also be pleased to know whether the Rubber Growers' Association would subscribe to the Scheme, and considers it should be asked to do so considering the large acreage in South India now subscribing to that body. It further would be pleased to hear whether the Governments of the States of Travancore and Cochin have been approached with a view to their support."

356. ROUGH HANDLING OF GOODS IN SHIPMENT BETWEEN TUTICORIN AND COLOMBO.—Mr. Campbell Hunt made a statement as regards the rough handling of goods as above, which had occurred on several occasions to the produce of Estates in which he was interested. It was decided to send a protest to Messrs, McKinnon McKenzie & Coy., Ltd., through the U. P. A. S. I., deprecating the rough handling of the goods in transport and instancing the case quoted by Mr. Hunt.

357. U. P. A. S. I. BUDGET, 1917/18.—Papers on this subject were laid on the table and recorded.

358. LONDON SOUTH INDIAN PLANTING ASSOCIATION.—Correspondence on this subject was put before the meeting. The following resolution was placed on record. "This Association would be glad to see the London South Indian Planting Association started as soon as possible and considers details should be left in the hands of the Committee now considering the reorganisation of the U. P. A. S. I."

359. MALABAR-NILGIRI SETTLEMENT.—Papers laid on the table and recorded.

360. ROADS.—It was noted with satisfaction that the corner of the Kalikavoo Parambail road in the Ernad Taluk of S. Malabar, was about to be widened.

361. MEDICAL.—Correspondence *re* the proposed Dispensary at Kalikavoo, South Malabar was read and approved. It was hoped that the Dispensary would become *un fait accompli* during the coming year.

361. RELEASE OF THE MADRAS INTERNEES.—The following resolution was adopted unanimously:—"This Association deplors the action of the Higher Authorities in bringing pressure to bear on the Madras Government leading to the unconditional release of Mrs. Besant and other political agitators. It further regrets their strictures on Sir Michael O'Dwyer with reference to his plain statement of facts regarding the loyalty of the Punjaub."

362. EUROPEAN ASSOCIATION.—The Honorary Secretary was asked to circularise all Members asking them to at once join the European Association.

Every non-member in the room agreed to join.

361. Mr. A. H. Mead, who had very kindly represented the Association at the previous day's finance conference at Ootacamund, addressed the Meeting as to what had transpired. Mr. Mead was accorded a unanimous vote of thanks for the trouble he had taken on behalf of the Association.

It was resolved to hold the next meeting of the Association at Calicut early in February 1918.

With a vote of thanks to the Chair and to the Honorary Secretary and Members of the Malabar Club for the use of the room, the meeting terminated.

(Signed) CAMPBELL HUNT,
Chairman.

(") R. LESCHER,
Honorary Secretary.

MARKETS, PRICES, AND STATISTICS.

Coffee.

Monthly Statistics to 11th August.

	1917.	1916.
	tons.	tons.
EAST INDIA—		
Landed to 31st August	2,888	2,074
Delivered to 31st August	1,166	2,110
Stock on 31st August	2,489	1,350

COFFEE OF ALL KINDS—

Stock in U. K. on 31st August ...	49,000	35,000
Total European Imports to 31st August ...	145,305	247,230
Total European Deliveries to 31st August ...	180,940	246,535
Total European Stock on 31st August ...	189,825	207,000
World's Visible Supply on 31st August ...	545,470*	514,645

* An increase of 75,940 tons compared with an increase of 50,290 tons last year.

Offerings in auction have been:—

	29th Aug. 10th Sept.	Since 1st Jan.	Last year.
East India	3,070	20,051	27,102
Costa Rica	1,335	75,669	93,276
Other Milds	5,187	44,489	61,625
Brazil	1,588	70,338	69,897
Robusta	Nil.	724	1,351
B. E. A.	Nil.	4,971	9,540
Uganda	Nil.	11,383	

Messrs. T. H. Allan & Co. in their weekly report dated 12th September say:—"The better kinds continue to meet with a good demand at full prices but lower kinds are dull."

The following prices have been obtained in London auctions for South Indian Coffee:—

	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
MYSORE.						
X. Q. ...	23. 104/6	3. 95/6	...	3. 122/-	2. 85/-	...
HC. ...	129. 93/-	20. 89/-	5. 83/6	14. 108/6	17. 84/6	92/8
Ubban ...	179. N.	142. N.	21. N.	23. 106/-	23. 84/-	...
Utollalu ...	55. 94/-	34. 89/-	3. 84/6	22. N.	11. 85/6	...
K. TT. ...	71. N.	20. 85/6	10. 80/6	28. N.	17. N.	...

—	No. 1.	No. 2.	No. 3.	P. B.	T.	Aver- age.
MYSORE.						
Balekonda ...	25. 88/6	13. 86/-	4. 80/-	5. 95/6	3. 80/6	87/5
Santawerry ...	120. N.	33. 90/-	2. 84/6	15. N.	16. 84/6	...
Barguai ...	17. 89/-	20. 85/6	3. 79/6	7. 92/-	12. 81/-	86/-
Honeyvale ...	20. 97/-	18. 92/-	4. 83/6	7. 109/-	3. 84/-	96/10
Attikhan ...	76. 90/-	26. 87/-	2. 80/6	11. 105/-	...	...
Buskull ...	41. 89/-	12. 84/-	1. 79/-	7. 92/-	6. 79/6	87/5
Hooli Hundloo ...	35. 89/-	18. 84/6	3. 79/6	6. 93/-	6. 80/-	86/10
Mavinkere ...	65. 87/-	29. 84/6	3. 79/-	12. 91/-	5. 78/6	86/4
Rungiahs ...	114. 93/6	43. 89/6	...	13. 103/-	15. 83/6	...
COORG.						
Havina Kadu ...	20. 93/-	14. 87/6	...	2. 99/-	3. 83/-	...
Cota Kadoo ...	38. 88/-	25. 85/-	...	7. 100/-	11. 80/-	...
Bala Kadoo ...	56. N.	10. 85/-	...	13. 96/6	13. 81/6	...
Bajee Collie ...	37. N.	16. 85/-	...	2. 97/-	6. 81/6	...
NELLIAMPATHIES						
Lily ...	47. 88/-	20. 85/6	...	7. 94/-	7. 81/-	...
Karapan ...	43. 88/-	20. 85/6	5. 79/-	6. 95/6	...	...
TRAVANCORE.						
Devacolam ...	20. 90/-	40. 87/-	15. 84/6	10. 99/-	7. 83/-	89/-
NILGIRIS.						
Mootil Peak ...	23. 92/6	7. 86/6	...	1. 91/-	7. 81/6	...

Tea.

Small supplies sell readily at the maximum prices. "Free" teas are dearer. Meanwhile the shortage is beginning to be felt.

At the London auctions held on 15th October 8, 345 packages were offered. The market was generally strong and the demand was active. Some irregularity of prices was distinguished in the case of teas lying in Liverpool owing to the absence of samples. The auction disclosed marked weakness in some of the "D" class teas owing to the unconfirmed report that they also were going to be controlled. The decline varied from 2d. to 6d. per lb.

Rubber.

Messrs. T. H. Allan & Co., in their weekly report dated 12th September say "the market has been very firm although the actual amount of business done has not been very large. Crepe 2/10½, sheet. 2/8½."

R. D. A.

INDIAN DEFENCE FORCE ACT.

In view of what was published in last week's *Chronicle* it has been thought advisable to reproduce Mr. Pinches' excellent speech at the Annual General Meeting.

Mr. H. L. PINCHES (Kanan Devan) : Mr. Chairman and Gentlemen,— I have the pleasure to propose the following Resolution :—

“That Government and the Military authorities be asked to confer with the Planters' Association of South India regarding the application of the Indian Defence Force Act to planting districts firstly, with a view to ensuring that the assistance obtained from the planting community is as efficient as possible from a Military point of view and secondly, to put a stop to the unnecessary hardships and expenses at present caused to planters and also the unnecessary disorganization of planting business.”

I should like to say at once that I am proposing this Resolution with no idea of attempting to hamper Government in their effort to obtain the men they require for military service or to evade the obligation that I consider of the present moment everyone of us individually and every business in India is under to help the Empire to the very utmost of our power. The fact must not be lost sight of, however, that a large number of Estate Managers and Assistants have already left their Estates to fight for their country, and certainly in many cases if many more men are taken, the Estates will have to shut down. I do not mean to say that planting districts cannot give more men and at the same time carry on the Estates, but I do mean to say that unless extreme care is taken in the selection of men, a large proportion of the Capital invested in South Indian Tea, Coffee and Rubber Estates will be lost, and it seems to me the most practical way to avoid such a catastrophe overtaking the planting industry is for a Conference to be held between the Government, the Military Authorities, and the planters represented by the U. P. A. S. I., to decide which men can best be spared, and how the remainder can receive the military training it is considered necessary to give them whilst causing as little disorganization of the industry as possible. I have no hesitation in saying that up to now since the Act was brought into force the planters, at all events in outlying districts, have received the minimum of practical training with the maximum of interference with Estate work. Men in my district, the High Range, still ride anything up to 42 miles there and back to put in a few hours drill and that given by an amateur soldier (though I hasten to add a most efficient one) our Sergeant Instructor having been withdrawn from the district. Many of us travelled long distance to Exemption Tribunals only to be referred to Selection Committees and so on. If it were necessary to give up all this time we should not complain, but what we object to is that it is not necessary as the same or better results from the military point of view could be obtained with far less interference with Estate works if those responsible for the application of the Act understood the conditions in planting districts, and consulted the planters. In North India a similar Conference to the one I propose was held at Shillong, and from the Proceedings of that Meeting published in the Indian Tea Association's Circular No. 41, it would appear that a complete agreement was arrived at both as to the best means of training and calling out of men, and it is interesting to note from those Proceedings that the General Officer Commanding the Presidency Brigade, Brigadier-General Strange, agreed to give an undertaking on behalf of the Military Authorities that *one* European will be left on every garden, and that no men will be transferred for service outside the Province, subject to the proviso that in case of necessity a maximum of 64 men from Assam and about 32 from the Surma Valley

could be furnished for outside service. Planters in South India would welcome a similar definite assurance that their interests will be safeguarded. One European to each Estate, unless the Estates are very small is, I think, a minimum with which the Estates can be carried on. Another matter we should try to come to some arrangement about is in regard to Planters applying for and receiving Commissions in the Indian Army Reserve of Officers now that the Indian Defence Force Act is in force. Just now all the men liable for general service belonging to the Southern Provinces Mounted Rifles are being grouped for three months' training. If, meanwhile, commissions are going to be given to any men who apply for them without any reference to their employers, the arrangements we make for carrying on the estates during the absence of the Managers or Assistants in training will be entirely upset. It will also be impossible to reduce the European staff of Estates to the lowest possible number if there is any avoidable uncertainty regarding the continuity of the services of those that remain. It seems to me that, if Government take the power to call men out from Estates they should have and use the power to compel others to stay on them or at all events consult their employers before accepting their services. This grouping for training of men belonging to the Southern Provinces Mounted Rifles to which I have just referred is a case in point where co-operation with the planting districts would have avoided needless trouble. The grouping as published in the Regimental Order of the 24th July is quite unpracticable so far as planting districts are concerned and will have to be completely revised before it can be brought into action. When mentioning the Regimental Order I should like to refer to the publication of a list of our dependants who are stated in full detail in this document. It is difficult to see what military advantage is to be gained by publishing information of a confidential nature such as this whilst that it is strongly resented in many quarters I know. At all events we can at least ask that if this information must be published that care is taken to see that it is accurate and thus avoid any risk of upsetting the domestic felicity of any of the married members of the corps. There are many other matters in connection with the application of the Act to planting districts that badly require putting on a business footing such as for instance what is to become of the wife and family of the married planter called out for three months' training or for general service. They cannot stop on the Estates often miles from their nearest neighbour firstly, because they cannot receive the necessary protection there, and secondly, because the bungalow will often be required for a *locum tenens* carrying on the Estate work during the Manager's absence. To send his wife and family to Madras or a Hill Station would seem the only alternative, and this would be a considerable expense that, even if he were able to afford, it would be quite inequitable to expect him to bear considering the necessity has arisen through his performing service for the State. There are other points I could mention, but I think I have said enough to show that a Conference such as I propose between the Government, Military Authorities, and the planters is urgently required. Such a Conference will, I am confident, not only enable Government to get full advantage of the further help from a military point of view the planting community of South India can give but will also ensure that that assistance is got without disorganising our industry more than is absolutely necessary. Mr. Congreve (Anamalais) in seconding the Resolution said: I fully agree with all that Mr. Pinches has said. At present the position is chaotic and it appears to me the only way in which full use of the great possibilities of the planting community for the purpose of national defence can be turned to the best advantage is by holding a conference between the military authorities and the planters Representatives as proposed by Mr. Pinches.

The Resolution was carried.

The Indian Destructive Insects and Pests Act 1914.

This Act was introduced at a Meeting of the Imperial Council at Simla in 1913 (*see P. C. VIII p. 479*) and the full text of it was published in the *Chronicle Vol. VIII p. 528*. It must not be confused with the local Pest Acts which are now under consideration; this is an Act to control the introduction of plants into India and to avoid the risk which is at present run of introducing new pests and diseases. Orders have recently been passed to bring the Act into force and these orders are explained in a recent Government Order (No. Press 3054, dated 28th September 1917,) which has just been submitted to us. The following is extracted from this Order.

The Act applies to British India, but the Resident in Travancore and Cochin will request the Durbars to introduce and enforce restrictions similar to those sanctioned by the Government of India:

"In this order—(i) 'Official certificate' means a certificate granted by the proper officer or authority in the country of origin; and the officers and authorities named in the third column of the Schedule are the proper officers and authorities to grant in the countries named in the second column the certificates required by the provisions referred to in the first column thereof;

"'Plant' means a living plant or part thereof, but does not include seeds; and

"'prescribed port' means any of the following ports, namely Bombay, Calcutta, Dhanushkodi, Karachi, Madras, Negapatam, Rangoon and Tuticorin.

"(ii) all provisions referring to plants or seeds shall apply also to all packing material used in packing or wrapping such plants or seeds.

"2. No plant shall be imported into British India by land or sea by means of the letter or sample post.

"3. No plants other than fruits and vegetables intended for consumption, potatoes and sugar-cane shall be imported into British India by sea except after fumigation with Hydrocyanic Acid Gas and at a prescribed port;

"Provided that plants which are infested with living parasitized insects and are intended for the introduction of such parasites may be imported without such fumigation if they are accompanied by a special certificate from the Imperial Entomologist to the Government of India that such plants are imported for the purpose of introducing such parasites."

NOTICE.

KAISER-I-HIND ESTATE.—The name of this Estate, generally referred to by its obnoxious abbreviated name KAISER, has been changed to WINDSOR ESTATE, as from the 1st July, 1917.

W. DEANE.

Beau Voir, Kotagiri, Nilgiris.

CORRESPONDENCE.

12th October 1917.

THE EDITOR,

*Planters' Chronicle.***The Re-organisation of the U. P. A. S. I.**

Sir,—That re-organisation is required if the Association is ever to have the influence the steadily increasing importance of the Southern India planting industry deserves must be patent to everyone who has given the least consideration to the matter, and it has certainly been very clearly shown during the past twelve months that far too much is expected of the Chairman and Legislative member who, apart from the Association's work, are almost always extremely busy men.

To start with, in my opinion there should be a properly staffed office in Madras in charge of a well salaried man competent to do the Secretarial work for all departments of the Association.

It has been suggested that instead of separate subscriptions being paid as at present to the various departments, there should be one at the rate of Rs. 1/12/- per acre for tea and rubber and Re. 1/4/- per acre for coffee. All Estates to have the benefit of the Labour Department, rubber districts to have the special Mycologist asked for at the last Bangalore meeting. Here we strike the initial difficulty, Tea men may ask why rubber should have something more than them; tea and rubber men, why coffee should pay less. The answer to the first question is that rubber districts believing that they can do without the Labour Department, which the great majority of tea planters look on as an absolute necessity, will not contribute to its upkeep unless assured of the Mycologist whom they consider essential to the future well-being of their estates. To the second question the reply is that coffee, I am told, does not pay anything like such good profits as tea and rubber and should therefore be let off lightly. How far this is actually the case I cannot myself say not knowing much about coffee, but this matter of subscriptions is one which I think may be adjusted without any great trouble.

The crux of the whole question of re-organisation is the Labour Department. Personally I cannot see that value is being obtained for the huge annual expenditure, an opinion held, I believe, by more than one subscriber. That reorganisation of the Department itself is desired was made clear at the Bangalore meeting when Mr. Lake's resolution on the subject was carried unanimously. I not being a subscriber and with only Mr. Martin's reports and casual remarks from possibly wrongly dissatisfied subscribers to guide me, am not in a position to offer any suggestion as to how expenditure may be reduced, efficiency increased, except that with only one Secretary for the various departments of the Association a general all-round saving should be effected. I hope, then, that some planters with the interests of the Association at heart and with thorough knowledge of the Labour Department will put their views before us.

I think that all planters should be allowed to attend and vote at the Annual General Meeting. This might be done either by making the Association one of Estates instead of District Associations or by allowing individual planters to become members on payment of a small annual subscription.

I also think that there should be a pension fund for the Association's salaried officials.

Yours faithfully,

J. J. MURPHY.

Export of Coffee from the Madras Presidency.

At the request of the Chairman we wrote to the Collector of Customs asking him to kindly furnish us with a statement of the exports of coffee from the Madras Presidency, but he has more than exceeded our expectations by giving us a statement of exports of coffee from the Madras Presidency during the past 3 years and up to September 1917 during 1917-1918: for which we must all be extremely obliged.

STATEMENT OF EXPORTS OF COFFEE FROM THE MADRAS PRESIDENCY DURING THE PAST 3 YEARS AND UP TO SEPTEMBER 1917 DURING 1917-18.

		1914-15	1915-16	1916-17	1917-18 up to 30th September.
Countries to which exported.		Tons.	Tons.	Tons.	Tons.
United Kingdom	...	4,506	3,930	3,250	1,169
Aden and Dependencies	...	7	8	...	...
Bahrein Islands	...	153	240	101	...
Ceylon	...	556	664	723	490
Straits Settlements	...	cwt. 8	cwt. 10	21	...
Hongkong	...	...	...	2	...
Cape Colony	...	2	1	5	2
Mauritius and Dependencies	...	...	3	...	...
Western Australia	...	6	...	9	17
South Australia	...	88	71	53	43
Victoria	...	348	349	277	189
New South Wales	...	215	161	205	109
Queensland	...	10	...	7	4
New Zealand	...	42	10	22	39
Other countries	...	...	...	cwt. 2	2
Germany	...	89	...	...	...
Holland	...	53	...	...	...
Belgium	...	36	...	...	...
France	...	6,515	2,307	1,735	1,376
Switzerland	...	37	70	47	...
Italy	...	25	45	...	...
Austria-Hungary	...	414	...	...	...
Turkey-Asiatic	...	108	...	110	...
Muscat Territory, &c.	...	3	1	...	...
Other Native States in Arabia...	...	500	355	177	...
Persia	...	...	cwt. 15	...	...
China	...	...	cwt. 11	...	...
Japan	...	...	cwt. 5	...	cwt. 5

The figures in each column except the last are for the months April 1st to March 31st. 2,120 tons were shipped to the United Kingdom in March, 1917.

(Signed) G. N. BOWER,

For Offg. Collector of Customs,

Custom House, Madras,

Dated 16th October, 1917.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 44.]

NOVEMBER 3, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Editorial.

The Secretary of the U. P. A. S. I. left Bangalore on the night of 1st November for a short period of leave and is excepted to return to headquarters on or about 17th November. In his absence correspondence will be attended to as far as possible but some temporary delay may be caused. For this and for any shortcomings in the *Chronicle* during the absence of its Editor the Acting Secretary and Editor pleads for kindly indulgence.

The Deputy Director of Agriculture Planting Districts returned to head-quarters from a short tour in Malabar on 30th October and he expects to be in Bangalore till the 15th of this month.

ROLL OF HONOUR.

It is with regret that we have to announce the death of Lieutenant G. H. Morgan killed in action in France on August 18th. While in India this gallant officer was a member of the 'Coorg and Mysore Rifles. He enlisted with the Canadians at the beginning of the war and was wounded in France in August 1916.

SOUTH INDIA PLANTERS' WAR FUND,

	Rs.	A.	P.
Amount previously acknowledged ...	66,601	8	2
Mr. Albert J. Wright, Munnar ...	20	0	0
Mr. Campbell Hunt ...	30	0	0
Total ...	66,651	8	2

PINK DISEASE.

Surprise is sometimes expressed that Rubber on an estate more or less isolated from neighbouring Rubber should be attacked by Pink Disease, but really this is not surprising since this fungus attacks so many plants that it is almost certain to be found in the jungle and is thus able to infect estates. Mr. Rorer writing in a Bulletin of the Trinidad Agricultural Department says the fungus which causes Pink Disease has been found in the East on as many as one hundred and forty-one different species of plants. In South India it has been found on trees like the Nutmeg, Silk Cotton, Cinnamon, Jack, and Mango as well as on Pepper vines and Strobilanthes so that its chances of being present in any jungle are high.

DISTRICT PLANTERS' ASSOCIATIONS.

Coorg Planters' Association.

*Minutes of Quarterly General Meeting held at the Mercara Club,
on 12th October, 1917.*

PRESENT :—Messrs. G. K. Martin, President (in the chair); H. W. Sheldrick; J. Stuart, W. R. Wright, A. F. Magniac, W. A. F. Bracken, G. R. Pearse, E. L. Mahon, S. P. C. Raymond, L. Newcome, F. Macrae, N. M. Scholfield, H. M. Mann, T. Cox, F. W. Gerrard, P. G. Tipping, J. W. Irwin, A. J. Wright (Honorary Secretary).

There was a preliminary meeting, at which the President explained that he had a political Resolution to bring forward, and those who did not wish to be present, might come in when the regular business of the meeting was being conducted.

He then read the following Resolution :—

This Association, while disclaiming any antagonism towards the genuine and legitimate aspirations of the People, deprecate the reckless methods by which they are sought to be attained by an immoderate section of the people; and view with misgiving, the encouragement given to that section by the Government of India, through their recent action, the deplorable results of which may be seen in the sinister notes of exultant victory over the forces of Order imported into the manifestations of extravagant rejoicing at the release of Mrs. Besant, and at the repeal of the executive orders of Bombay and other Governments, issued with the purpose of restraining her reckless campaign: thereby lowering respect for the Authority of Provincial Governments and creating a dangerous situation throughout India.

This was seconded by Mr. Mahon, and carried unanimously.

In moving the Resolution the President said :—

" Since the introduction of the Hibbert Bill, 34 years ago, the European community of India has not been so deeply stirred as now by the unjustifiable action which heralded the assumption of Office of the Right Honourable Edwin Samuel Montagu, and connived at by the Government of India.

" In this case the blow is not aimed at the European body, but at Authority itself, and therefore the just resentment and indignation, as well as alarm, will be shared by all respecters of Law, Order and Security, both European and Indian.

" A more injudicious course taken for creating a calm and unprejudiced atmosphere could hardly have been conceived. Political matters are not within the scope of this Association. But as Englishmen, with a considerable stake in the Country, we must see that we are not jockeyed out of a due consideration of our interests in the coming discussion on Reform, by a noisy minority of extremists who are only crying for the moon, and are not at all representative of the silent millions of India.

" We should all therefore support the European Association, which is best fitted to look after our Political interests, and the best way of doing so is to join that Association. I have done so."

The Secretary was asked to send copies of the Resolution to the "Madras Mail" and the European Association.

The General Meeting then opened, at which F. Hannyngton, Esq., I. C. S., and M. Brown, Esq., were present.

The President, proposing a vote of condolence to the relations of Mr. O'Beirne, said:—

"This hateful war has taken a heavy toll of our small community. It has fallen especially heavily on Mangles Bros lads, the latest victim being poor O'Beirne, who was killed in an air fight. I will ask you to pass a vote of condolence to his poor Mother, who had a few months before, lost another son in the same way."

This vote was passed all standing.

The Notice convening the Meeting was read, and minutes of last meeting were read and confirmed.

1. Mr. Mahon read the Report of the Delegates to the U. P. A. S. I. Conference:

Mr. Chairman and Gentlemen.—In accordance with your instructions your Delegates duly attended the 24th annual meeting of the U. P. A. S. I. Conference of 20th/24th August. A full account of the Resolutions passed, and business done, in open meeting, was published in the "Madras Mail." The plan of conducting the Conference, in vogue from last year, was most satisfactory: Various Committees were appointed, and all important matters thus first threshed out, on their merits, before being brought up at open meeting, which latter, though lacking somewhat of the former interest to the General Public, proved most advantageous to ourselves, and Reporters, insomuch, that when it came to the actual passing of the resolutions, everything passed off with admirable precision, thus testifying to the general organizing ability of those responsible for the innovation.

According to your Committee's instructions, we supported all resolutions which were brought up for the benefit of the Planting Community, and for ourselves in particular, whilst we placed on record your appreciation of the manner that our Local Government have endeavoured to push forward all matters connected with the furthering of the present railway project into the Province, in conjunction with the scheme now contemplated by the Mysore Durbar.

In seconding Resolution No. 8 (Imperial Preference for Tea and Coffee), we were able to afford the following interesting figures given us, through the courtesy of Mr. Rose, of the Mysore Bank:—Imports into the following Countries for 1915-16, Union of South Africa Cwts. 257,629; Aden, Cwts. 126,244; Straits Settlements Cwts. 40,264; Australia Cwts. 28,796; and Ceylon Cwts. 14,233, thus showing the enormous Coffee Trade, that lies almost at our door, if we could only turn it to advantage.

Mr. Richardson's Resolution No. 15 *re.* the formation of a London South Indian Planting Association affiliated to the U. P. A. S. I., to look after our interests at home, is of special interest to you all, and well worthy of support.

No. 16 with regard to it being advisable to enter into correspondence with the Indian Trade Commissioner, in London, with a view to securing his assistance in developing our industries now, and after the end of the war, is to be commended. It may be of interest, for some of you to

learn, that the present Indian Trade Commissioner, is our old friend, Mr. D. T. Chadwick, the late Director of Agriculture, Madras, whose very interesting Report on Indo-Russian Trade we now lay upon the table. On page 41, you will find a treatise entitled "Coffee in the Bean," and from the information there given, should prove that Russia, after the war, will be a valuable field, in which, to push our Produce.

The Conference was attended, amongst others, by our Chief Commissioner, the Hon'ble Mr. H. V. Cobb, whose kind and genial hospitality we enjoyed during our stay at Bangalore; and whose speech on the opening day was but an echo of the unfailing sympathy, he is ever ready to bestow on all Planters together with their interests.

As also had our indefatigable Commissioner, Mr. F. Hannington, to whom your thanks are due for the kindly interest he bestowed in your welfare, in attending all the meetings, and rendering us valuable advice, specially, at an informal, but representative meeting, when the subject of amending Act 13 of 1859 was thoroughly considered; whom he largely assisted towards the details of the resolution passed in open meeting, the first part of which, is a resumé of what was originally adopted by this Association, at a Committee meeting held at Sidapur, and which is to be read under Resolution No. 13.

In conclusion we would like to draw your attention to the amount of time and work that is given by the Chairman, Planting Member, and in a lesser degree by the Council of the U. P. A. S. I., to the furtherance of planting interests generally, and ask you to accord them a hearty vote of thanks. You will have been glad to observe that the Office-Bearers of last year, have been re-elected for this.

We shall be glad to give any information, and answer any questions that members wish to ask.

A hearty vote of thanks to the Delegates was passed.

COFFEE PROHIBITION, Etc.

2. Read letter from the Collector of Customs regarding the quantity of last season's Coffee still under permit to be shipped, amounting to 2971 tons, and pointing out that only 2022 tons, as far as he knew, remain in the country, say, 950 tons less than might be shipped: and he proposes to cancel the original permit, and allow all remaining coffee to be shipped, irrespective of the amounts apportioned to the different Districts. The proposal to cancel the permit was objected to on the ground that we should lose the benefit of the permission to ship the 950 tons abovementioned, which could be made up with a part of this Season's crop.

Unless Government are prepared to grant fresh licenses for shipment of Coffees about to be harvested, the 950 tons available of last season's permit may be of some relief.

This subject provoked a lively discussion, and among other matters, the latest freight quotations of Rs. 650 per ton of 14 cwt. for merchandise from India, and the news that France had proclaimed Total Prohibition was noted with grave apprehension.

Mr. Tipping argued the importance of taking every opportunity offered to impress on those in Authority, whether having direct jurisdiction over us or not, the urgency of our needs; and in this connection he was convinced that this Association was making a mistake in not sending a Deputation to Calicut to meet H. E. the Governor of Madras, as we have been invited to.

He continued—"With regard to the present position of finance which is very serious for Tea, Rubber and Coffee but especially for the last, which is ruled out (in finance and tonnage) as being of no 'National Importance.' But why is it of no National Importance? Not because it is not drunk extensively in the United Kingdom, France and elsewhere, but because London, the chief distributing centre, is full of Foreign coffee, seized, or permitted in, to the exclusion of British grown East India coffee, and also because the much appreciated beverage is not an Army Ration, (as it should be) and therefore any sort of rubbish is bought and served up in the Canteens as "coffee." Government could easily relieve the situation for Planters, and save tonnage and money by doing so, and at the same time provide a sustaining and non-intoxicant drink for the Troops in India, Mesopotamia, Egypt, Salonica, and possibly France, by purchasing pure coffee either direct from Planters in Southern India, or their Curers.

"We have now reached the limit of our resources, and have come to the point where Government must step in and save us from the ruin that stares us in the face: and this seems the simplest way out of the difficult situation. Few Planters want loans if they can sell, and obtain money for their produce. None ask for Charity."

I beg to move the following Resolution :—

"That the Association do urge upon the Imperial Government, through the Chief Commissioner of Coorg and the U. P. A. S. I., the necessity of taking immediate action to relieve the Coffee Planting industry, and suggest the purchase of this Season's crop by Government as the easiest and best method of meeting the present crisis. And do again suggest that pure coffee be supplied to the troops in the East and Middle East, thus saving tonnage and money and conferring benefits on all parties concerned." This was seconded by Mr. Scholfield and carried unanimously.

With regard to the introduction of Foreign and other coffee permitted to be imported into the U. K., where E. I. coffee is threatened with Total Prohibition, Mr. Mahon read the following letter received from his Head Office in London.

(Copy)

The Coffee Association of London,
21, Mincing Lane, E. C., 3,
London, August 28, 1917.

BRITISH EAST AFRICA COFFEE.

Dear Sir,—I have pleasure in appending a copy of a letter received from the Ministry of Shipping, Transport Department, to which I shall be obliged if you will give the favour of your attention.

Yours faithfully,
(Signed) ALEX. J. PARNELL,
Honorary Secretary.

Ministry of Shipping,
Transport Department, S. W. I.

24th August, 1917.

Sir,—I am to acknowledge receipt of your letter of the 21st instant and to state that instructions have been given to the Lines to carry up to 500 tons "Sundries" in each steamer calling at Mombassa. It is considered, therefore, that under this reservation four ships should be able to

find accommodation for at least a part of your consignment of coffee, and you should post them as to the position, so that they may keep in touch with the loading agents.

I am, Sir,
Your obedient servant,
(Signed) A. H. MARQUAND,

For Director of Commercial Services.

and spoke of the great quantities of coffee other than E. India, which were shipped to India, Aden, etc. and supported his statement with figures (which, as they were still incomplete, he proposed to produce later). Tentatively, he mentioned that about 12,000 tons were grown in India and some 26,000 imported.

It would appear, therefore, but for these importations, a ready market might be found in this country for our coffee.

We find ourselves hampered on every side in disposing of our coffee; Brazil, Central American and East African, etc. are allowed to flood the Home and Indian markets, while our produce is prohibited in the United Kingdom and France. Thus our Coffee becomes of no "National Importance" anywhere.

Mr. Mahon then proposed the following Resolution, seconded by Mr. Macrae:—

"That this Association do make a vigorous protest to the Government of India, through our Chief Commissioner against the Preferential treatment being allowed by the Home Government to Brazilian, Central American and East African Coffee to the detriment of ourselves, as shown by the strong evidence now to hand."
—Carried unanimously.

A circular letter, bearing on the same subject, from Messrs. A. J. Saldanha and Sons was read.

DEPUTATION TO H. E., &c.

It was resolved to send a Deputation from this Association to wait on H. E. the Governor of Madras at Calicut in conjunction with Deputations from other Planting Districts on the question of Finance and Tonnage; and to devise some means of affording relief to the Planting community from impending disaster as a result of Prohibition, Shortage of Tonnage and Banking difficulties.

Mr. Mahon kindly consented to represent the Association.

3. STORAGE OF COFFEE.—Read letter from Sir Francis Spring. (Chairman of the Madras Port Trust), offering ample accommodation for our produce in the Madras Harbour godowns; setting forth the advantages of the same, and conditions on which this accommodation may be availed of.

Resolved that while thanking Sir F. Spring for his offer, which might at some time be of benefit to us, we are unable, directly, to take advantage of it, it being a matter we would have to leave to our Curing Firms to arrange, in the event of their being unable to ship our coffee before next Monsoon.

4. PROPOSED SOUTH INDIAN PLANTERS' ASSOCIATION.

It was decided that owing to insufficient information being at hand, that the consideration of this subject be deferred and put on the Agenda of the next General Meeting, when full particulars might be available.

At the same time, it was pointed out that in these hard times, the formation of yet another Association, which requires to be financed, was a questionable procedure. What is the matter with the British Empire's Producer's Association? Is it not sufficient to further our interests at Home?

5. Act Thirteen of 1859. Some Rulings and Orders relating to local conditions were read and explained to the meeting.

6. U. P. A. BUDGET.

(a) Increase of Secretarial Staff.

(h) Moving of Office to Madras.

The Association considers that with extra work, due chiefly to the war, more assistance would probably be necessary, but as to moving the Office to Madras, we enter a protest against this for many reasons. We have received no cogent reasons for the contemplated change.

GENERAL.

Mr. Mahon's motion *re* reconstruction of Membership. Resolved that this be put on the Agenda paper of the next meeting.

NEW MEMBER.—Mr. E. P. Playford, proposed by Mr. A. J. Wright and seconded by Mr. W. A. F. Bracken, was elected a member.

Read letter from Mr. H. T. Shaw, *re* Ponampett—Kutta Road. Resolved that the Honorary Secretary be instructed to write to the Executive Engineer on the matter.

Read letter from Shevaroy P. A. *re* Crimping of Labour. U. P. A. Circular *re* Indo-Russian Trade.

The meeting terminated with a vote of thanks to the Chairman and Honorary Secretary.

(Signed) G. K. MARTIN,
President, Coorg Planters Association

(Signed) A. J. WRIGHT,
Honorary Secretary,
Coorg Planters' Association.

Mundakayam Planters' Association.

Minutes of the General Quarterly Meeting of the Mundakayam Planters' Association held at the Mundakayam Club, on Saturday, October 13th, 1917.

PRESENT.—Messrs. J. R. Vincent (Chairman), R. Harley, H. B. Kirk, R. G. Hutson, H. B. McPherson, T. W. H. Fitchett and J. E. Heflebower.

In opening the Meeting the Chairman referred to the sad death of Mr. Charles Hendry. In proposing a vote of condolence with the relatives, the Chairman remarked on the late Secretary's popularity. He was a hard and untiring worker who did excellent work for the Association and his loss is regretted by us all.

The vote was passed in silence all members standing.

(1). The Minutes of the last meeting were passed and the appointment of Mr. Edwin Vincent as Honorary Secretary confirmed.

At this stage Mr. H. B. Kirk proposed and Mr. Harley seconded that the Association support the attitude taken up by Messrs. Nicolls and Barber over the unconditional release of Mrs. Besant.—Carried.

(2). The Chairman read the report of the Bangalore Delegate which was as follows:—

I regret that I shall not be able to attend the Mundakayam Planters' Association meeting on the 13th so as to give my report in person.

The meeting agreed to our proposal for a rubber Mycologist and I have reason to believe that we shall have the support of all rubber districts.

I proposed a resolution that Government be asked to receive a deputation with reference to tonnage for Tea, Rubber and Coffee, and His Excellency the Governor of Madras has kindly consented to receive one at Calicut this month.

I also proposed that the question of moving the Offices of the Association to Madras be considered by District Associations. In my opinion the Association would be able to keep in better touch with Government and Mercantile interests if its Secretary were to reside in the chief city of the Presidency.

A great deal of the time at the Meeting was devoted to the question of Estate finance.

A resolution proposed by the Wynaad Delegate confirming the resolution passed unanimously at the Madras Finance Meeting was not carried as Delegates, for reasons I was quite unable to understand, thought that, if passed, it would prevent the Association from considering any alternative proposals Government might be able to bring forward.

Speaking briefly in support of the Planters' War Fund, I mentioned that I know of men including some, I regret to say, from Mundakayam who promised monthly subscriptions to the end of the War but stopped payment after a few months. I hope these gentlemen will now pay up. The fact that so far there have been few calls on the Fund is no excuse for not subscribing to it. The War unfortunately is not over yet, and the total collection to-date will be nothing like sufficient to help adequately even one or two badly wounded men to give the necessary assistance to others anxious to return to planting or start in a new line elsewhere. I trust that the generous lead given by Messrs. Volkart Bros. to coast firms will not be lost sight of.

Mr. Nicolls was re-elected Chairman. He and the Hon'ble Mr. Barber are most undoubtedly giving their time unsparingly to our interests in the crisis planting is passing through, and our sincere thanks are due to them.

Mr. Kirk proposed and Mr. Harley seconded a vote of thanks to Mr. Murphy for representing the Association.

(3) THE SCIENTIFIC OFFICER SCHEME.—The Chairman read minutes of the Scientific Officer Committee Meeting which were passed. The Honorary Secretary was requested to write to Superintendents to the effect that five Estates supported the scheme and asking those who had not joined, to obtain permission from proprietors.

(4). TOWN IMPROVEMENT COMMITTEE.—Read letter from the Commissioner Devicolam. The Committee's action in nominating Mr. Edwin Vincent to the Committee in place of the late Charles Hendry was confirmed.

(5). H. E. THE GOVERNOR'S VISIT TO CALICUT.—The Meeting noted that Mr. Murphy was sent to meet H. E. The Governor at Ootacamund, and approved. It was decided in view of Mr. Murphy's message that no delegate need be sent to Mangalore.

(6). H. H. THE MAHARAJAH'S SHASTIABDAPURTI.—The Meeting notes the amount subscribed already for the Chattram scheme and the possibility of more being received. It is hoped that the Peerimade Estates will subscribe.

Mr. Tharyan's accounts and report were circulated for the information of members.

(7). SOUTH INDIA PLANTING ASSOCIATION.—It was moved from the chair and unanimously agreed that the spirit of the Chairman's letter to the Honorary Secretary dated 29th September be communicated to Messrs. J. A. Richardson and Fletcher Norton.

(8). AUDITORS.—Messrs. Howson and Pollock were asked to audit the Association's accounts for 1917.

(9 & 10). SRI MULAM 1918 AND THE TRAVANCORE COMBINED PLANTERS' ASSOCIATION ANNUAL GENERAL MEETING.—The Chairman, Mr. J. R. Vincent, kindly consented to represent the Association at both of these.

(11). CORRESPONDENCE.—Read correspondence relating to the deaths of 3 members of this Association during the past year. It was proposed from the chair and unanimously agreed to that a memorial tablet be erected in the Mundakayam Church combining the names of Messrs. Napier, West and Charles Hendry.

(12). DATE AND PLACE OF NEXT MEETING.—The Annual General Meeting was fixed for Saturday, January 12th, 1918 at the Mundakayam Club.

The Meeting terminated with a vote of thanks to the chair.

(Signed) J. R. VINCENT,
Chairman.

(„) EDWIN VINCENT,
Honorary Secretary.

Shevaroy Planters' Association.

Proceedings of the Annual General Meeting of the Shevaroy Planters' Association held at the Victoria Rooms, Yercaud, on 26th October, 1917.

PRESENT—Revd. Father Capelle, Messrs. S. Campbell, E. Travers-Drapes, V. Travers-Drapes, R. W. B. Gompertz, S. M. Hight, C. L. Hight, J. C. Large, W. I. Lechler, C. G. Lecher, E. L. Poyser, C. Rahm, W. Rahm, V. S. Wooduvis and Chas. Dickins, (Hon. Secretary), Mr. R. A. Gilby by his proxy Mr. C. Dickins. **Visitors**: Mr. N. Hight and Mr. F. Carey (Chairman, Yercaud Union.)

(1) The Notice calling the meeting was taken as read.

(2) **ELECTION FOR MEMBERSHIP.**—Proposed from the Chair and carried nem con: "That Mr. Gaebale (Merchant and Owner of Honey Rock Estate) be admitted a member of the Shevaroy Planters' Association."

(3) **EXPORT OF COFFEE TO UNITED KINGDOM.**—Read letter dated 10th October from Secretary U. P. A. S. I. Proposed by Mr. E. L. Poyser, seconded by Mr. V. Travers-Drapes and carried unanimously: "That the Honorary Secretary, Shevaroy Planters' Association be requested: (1) to write to the Secretary, U. P. A. S. I., and ask if any definite news has been received in answer to resolutions 8 and 12 passed at the late U. P. A. S. I. Meeting. If not, to press this matter, and obtain a settlement before the W. Coast Ports are again closed; and (2) To request the U. P. A. S. I., that in the event of shipping being provided to U. K. that allotments be made pro rata to District Associations.

(4) **THE MADRAS EXHIBITION.**—Read Circular No. 59/17 dated 15th October, 1917. (a) The following gentlemen stated that they would send exhibits to the exhibition, viz., Messrs. F. Carey, V. Travers-Drapes, E. Travers-Drapes, R. W. B. Gompertz, S. M. Hight, and J. C. Large and most of the members at the meeting agreed to send down samples. It was resolved "That the above form a Sub-Committee and to meet on Friday, 2nd at V. Rooms for the purpose of discussing further details."

(b) **S. P. A. REPRESENTATIVE AT THE EXHIBITION.**—The sense of the meeting was taken and it was agreed that the Association do pay the expenses of one of the sub-committee for the purpose of attending to the interests of the members of the Shevaroy P. A. at the exhibition.

(5) **CELEBRATION OF "OUR DAY" AND MR. BARBER'S LETTER OF 10TH OCTOBER.**—The Honorary Secretary stated that the above had been printed and circulated to all members.

(6) **INDIAN DEFENCE FORCE ACT.**—Read circular No. 60/17 dated 22nd October 1917. *Resolved.*—"That in view of the intention of 'the Military authorities' to mobilise the men of the I. D. F. (Yercaud) for guarding the local Armoury with the hardship of doing so at this time of the year, when other arrangements could be made, the Honorary Secretary is requested to point out to the Secretary, U. P. A. S. I., the facts of the case and request him to kindly place the matter before the military authorities at a *very early date.*"

Proposed by Mr. J. C. Large, seconded by Mr. R. W. B. Gompertz and unanimously carried.

The following rider was added by the Meeting: This is one of the smallest Districts, and has already lost many men who have gone on active service and consequently the mobilisation of the majority of the remainder would cause extreme hardship, as even with every member of the I. D. F. doing duty, the Local Force of this Planting District would not be strong enough to quell any organised disturbance. Many members of the I. D. F. live as much as 10 and 12 miles from Yercaud and when called up would have to leave their wives and children totally unprotected on the Estates. This is a hardship peculiar to these Hills as Government have not quartered interned aliens in any other planting district and we therefore request Government to consider this case of hardship and arrange, as soon as possible, for a military detachment to be sent to this District to protect the interests of residents and planters.

THE HONORARY SECRETARY'S REPORT.—The Honorary Secretary then read his report for year ending August 1917: Gentlemen:—Owing to the financial crisis now facing our Industry and the Political agitation in India, meetings in connection with these more important pressing matters were obliged to be convened thereby delaying our Annual General Meeting to a considerable extent. I regret this very much, but under the circumstances you will, I am sure, admit it was unavoidable. In submitting you the usual report for the year ending August 1917, I shall start with the most important item and that is accounts. The actual income of the Association amounts to Rs. 1,487-6-10. There are some considerable outstandings which must necessarily be expected but I shall come to that later. Then from last season we had a balance of Rs. 300, which was placed to our credit in the Bank of Madras, Salem, thus bringing the grand total to Rs. 1,787-6-10 less the outstandings. The following items will show how the above amount is arrived at. We started the year with Rs. 168-8-2 in hand and Rs. 300 to credit. On account of sale of 215 bamboo permits at 2 annas each to various members equa's Rs. 26-14-0, on account of the sale of 192 grass permits at 3 pies each Rs. 3; recovered outstandings due to the Association for year 1916, Rs. 30; 15 subscribers at Rs. 10 each to P. B. F. Rs. 150; 27 subscribers at Rs. 30 each to the Association for year 1917 Rs. 810-0-0; on account of sale of 584 A and 584 B coffee-sales agreement forms at 6 pies each to members of the S. P. A. Rs. 36-8-0; on account of sale of 154 8 anna stamped agreement forms between planter and maistry at 9 annas 6 pies each Rs. 81-7-0; 97 (8—anna stamped contract agreements 9 annas 6 pies each Rs. 46-5-0; 2515 unstamped agreement forms between M. & C. at 8 pies each Rs. 100-10-0; also 12 unstamped agreement forms between P. & M and 312 unstamped contract forms Rs. 24-2-8; thus making in all a grand total of Rs. 1,787-6-10. The expenditure during the year amounts to Rs. 1,538-1-3 and is accounted for as follows:—The up-keep of office establishment cost Rs. 204, Treas. Tran. P. cards, coffee sale post cards, Reg. letters, and telegrams Rs. 28; to the Forest Department for bamboo permits Rs. 30-6-0, for printing various S. P. A. Notices circulars and proceedings Rs. 24-9-3, the purchase of one Book, U. P. A. S. I. Proceedings and one letter copying book Rs. 5-1-0, to Messrs. Partridge King & Co., on account of legal advice Rs. 88-8-0; on account of printing 600 A, and 600 B, coffee sales agreement forms Rs. 17-8-0; on account of printing 2650 agreement forms between M. and Labourer, 155 (8 anna stamped agreement forms between P. and M. and 80, (8 anna stamped contract agreement forms), together with 12 unstamped agreement forms between P. and M. and 312 unstamped contract agreement forms with postage from Peirce, Leslie & Co., Calicut Rs. 230-11-0 paid to Secretary U.P.A.S.I. on account 4915 acres at 2 annas per acre Rs. 614-6-0,

also Rs. 150 on account of 15 subscribers to P. B. F. at Rs. 10 each. Paid Mr. V. Travers-Drapes Rs. 100 on account of expenses to Bangalore, and Mr. C. Dickins Rs. 45 for his expenses to Madras thus bringing the expenditure to Rs. 1,538-1-3 leaving a balance in hand of Rs. 249-5-7 of which Rs. 180 is with the Bank of Madras, Salem and I have with me Rs. 69-5-7. Besides this balance in hand, the outstandings of the Association amount to Rs. 150 a larger sum than we are usually accustomed to, but I have no doubt that by the end of the year this will be paid in. The value of bamboo permits together with the balance of the agreement forms amount to Rs. 17.

The accounts have been audited by your auditors and I feel sure they will testify to the correctness of the statements I have just read out.

The Association represents 32 estates this year against 33 last year, one of the estates on the Pulney Hills having resigned. Taking into consideration the financial situation this year, I must say the members have been very considerate in paying in their subscriptions, not only to the Association but also for the various agreement forms sold to them through the Association. During the year under review 14 meetings were held and all have been fairly well attended, some members exhibiting considerable energy and zeal in planting politics, worthy of all praise, especially taking into consideration that a great deal of time is now given to military duties.

I will now give you a brief resumé of what transpired at the various meetings. The Annual General Meeting was held on 13th October 1916; on 26th October, on 2nd November, and 10th November, Committee meetings were held for the purpose of drawing up agreement forms between M. and P., M. and C., contract agreement forms A. and B. agreement forms in connection with selling coffee to the local merchants. These agreement forms were sold to the members at a fraction higher than the actual cost price and the profit realised was Rs. 50-13-8 which went towards part-payment of the lawyer's advice in the matter. A Special General Meeting was held at the Arcadia Bungalow on 24th October 1916 in connection with reducing the Nagalur P. O. Establishment. It was found that a Telegraph Office was essential to the district, and the residents agreed to make good any loss that Government were put to by running a combined Post and Telegraph Office. At the quarterly General Meeting held on the 15th January we had the pleasure of welcoming Mr. Anstead and he arranged a programme with these present for a tour on the Shevaroy, ending up with an interesting lecture on "Spraying for leaf disease" and "Black Rot," "Collar Pruning" and "Artificial dryers of coffee," at a Special General Meeting held on the 25th January. At the meeting of the 16th the subject of "advance and acquittance certificates" was introduced by Mr. E. Travers-Drapes and a resolution passed to the effect that when any member is asked for an advance by a maistry or cooly who states that he or she has been working on another estate during the past year, they will before advancing the cooly or maistry, obtain an acquittance or other valid proof of having cleared off his or her old debt, before the cooly or maistry is advanced. In the case of maistries or coolies, the planter intending to advance such maistry or cooly shall make such enquiries as he may think fit to satisfy himself of the truth of their statements before paying the advance. A Sub-Committee meeting was held on the 1st February for the purpose of discussing a proposal made by Mr. R. W. B. Gompertz with reference to advertising the merits of Shevaroy Coffee. Revd. Father Capelle, Mr. V. Travers-Drapes and Mr. A. B. Kundaswamy proposed certain schemes with reference to pushing the sale of Shevaroy coffee and their addresses were read at the Quarterly General Meeting of 20th April. These subjects are

in abeyance for the present and doubtless will be put before the members again when trade conditions are more favourable. It might not be out of place to mention here that the subject taken up by those gentlemen is of very great importance to the community and they deserve every encouragement and help from the Association.

A Special General Meeting was held on 16th March in connection with the Prohibition of Import of Coffee into the U. K. Mr. C. G. Lechler delivered a very interesting address on the subject and your Honorary Secretary was elected to represent this Association at the Madras Meeting of 20th March, and put Mr. Lechler's speech together with the resolutions on the subject before that meeting. Mr. S. M. Hight took a considerable deal of interest in the matter, and also attended the Madras Meeting. At the Quarterly General Meeting of 20th April we had the pleasure of welcoming Mr. Waddington (The Deputy Director of Labour Department) and he settled the question brought up by the Association of agents of the Labour Department personally serving warrants on the Shevaroyes, and Mr. E. Travers-Drapes was directed to appoint a Labour Agent for work on the Shevaroyes under his own supervision and at a cost to be paid by the Department for a period of 6 months on trial. A Special General Meeting was held at the Arcadia bungalow on 16th May in connection with opening of a Dispensary with 2 wards in the Nagalur District and the generous offer of about Rs. 4,000 made by most of the Nagalur planters to the District Board is clearly an index of the necessity felt locally for such an institution which should have the effect of arresting and preventing the spread of malaria at least in that division of the Hills. I feel it my duty to mention here that the thanks of the residents of the Nagalur district are due to Dr. Mathias, the energetic District Medical Officer of the Salem District for the trouble he has taken over the matter on our behalf so also to Mr. Dakshitra Murtie the District Tahsildar of the Shevaroy Hills. A Quarterly General Meeting was held on the 13th July and draft amendments. "Form A. and B. relating to coffee permits was discussed and your Honorary Secretary was instructed to inform the C. and D. Magistrate, Salem, of certain alterations that this Association urged, at the same time pointing out that Government should undertake the printing and supply of coffee pass books and that they should be issued for sale at all local cutcherries. A Special General Meeting was held on 10th August for the purpose of electing a Delegate to represent this Association at the U. P. A. S. I. Conference. The subject of crimping mulallie Labour on the Shevaroyes was discussed and your Honorary Secretary was instructed to take steps in the matter. Mr. Legh (the Collector and District Magistrate) of the Salem District kindly attended this meeting and he gave us some information *re* finance and the Agricultural Loans Act. Reference also was made by him regarding the forms sent out by the Chairman of the U. P. A. S. I. In my opinion I do not think this report would be complete without making special reference to the good work done here during last crop season by the Police under their able and efficient officer Inspector Santhappa Pillai. They were able to trace and have convicted many receivers of stolen coffee and it is hoped that the Shevaroyes will come under the supervision of the same Police Officer this season and that the Association will place on record its appreciation of his good work. With reference to the sale of coffee to the local merchants, I would again earnestly emphasise the necessity and duty of every member sending in information to the Honorary Secretary with reference to the local price obtained for all grades of coffee. To my knowledge one member suffered to a considerable extent last season through his not being posted up with the rates. I do not for a moment believe that information was

withheld wantonly but just perhaps "slackness." I would put it to you in this way—a member living miles away from Yercaud and owing to the season and other reasons is unable to get away from his estate, it stands to reason he is placed to great disadvantage when he is unable to procure reliable information of what other members are selling at so it behoves us to help one another in this matter and keep prices at a parity as much as possible.

In conclusion gentlemen, I feel I must remind you that I have had the honour of serving your Association for the past ten years and by your many kindnesses, courtesy and help, my secretaryship has been made a pleasure. I have always been told that all good things come to an end and now I experience it. I have been mobilised for guard duty at Yercaud for an indefinite period and a considerable portion of my time will be occupied by travelling between Yercaud and Nagalur. I feel I would not be in a position to carry on the Association work satisfactorily, so I beg you will kindly release me of my duties, and it is with deep regret I find I must sever my connection with the Shevaroy Planters' Association as its Honorary Secretary.

Proposed by Mr. J. C. Large, seconded by Mr. E. Travers-Drapes and carried unanimously: "That the Honorary Secretary's Report be published in the P. C. together with the proceedings of this meeting and that a copy of that portion of the report relating to the good work done by Mr. Santhappa Pillai be forwarded to the D. S. P., Salem and that portion relating to Dr. Mathias to Col. Bannerman, I. M. S."

(8) ELECTION OF OFFICE BEARERS.—Proposed from the Chair and unanimously carried: (a) That last year's committee viz. Revd. Father Capelle, Messrs. E. Travers-Drapes, S. M. Hight, E. L. Poyser, J. C. Large, C. Rahm and W. Rahm officiate for year 1917-1918.

(b) RESIGNATION OF HONORARY SECRETARY.—Mr. E. Travers-Drapes on behalf of the meeting thanked the Honorary Secretary for his work during the past year with a request that he kindly reconsider his resignation and continue to "carry on" till such time that the Association hears from the Secretary U. P. A. S. I. relating to the resolution passed at this meeting with reference to the mobilisation of the small number of men of the I. D. F. now on the Shevaroy's.

The Honorary Secretary thanked Mr. Drapes for the kind words and said it would give him great pleasure to continue the Secretaryship of the Association, till such time that something definite was heard *re* the "Mobilisation order."

Owing to the time already taken up at the meeting and the distance some of the members had to travel, it was decided to postpone the following subjects to the next meeting:—

(1) Proposal by Mr. E. Travers-Drapes of recommending amendment in coffee returns Form A.

(2) Complaint sent in by Mr. Gilby with reference to one of his advanced servants being employed by the Chairman of the Yercaud Union while still under advance to Mr. Gilby.

(3) Letter from D. S. P. re. registration of carts.

With a vote of thanks to the Chair the meeting terminated.

(Signed) CH. DICKINS,
Honorary Secretary & Chairman.

MARKETS, PRICES, AND STATISTICS.**Coffee.**

Offerings in auction have been:—

			11—24 September.	Since 1st Jan.	Last year.
East India	...	...	3,909	33,960	27,102
Costa Rica	...	...	1,102	74,771	93,982
Other Milds	...	...	3,552	47,751	64,421
Brazil	...	...	1,560	71,898	84,066
Robusta	...	...	11	735	1,453
B. E. A.	...	...	Nil.	4,971	
Uganda	...	...	103	11,486	11,124

Messrs. T. H. Allan & Co. in their weekly report dated 25th September say:—"The market remains very strong for all home trade qualities. The definite announcement by the India Office that no more tonnage will be available this year and the fact that a great deal of the "Clan Mackinnon" coffee is sea damaged have helped to harden things.

The following prices have been obtained in London auctions for South Indian Coffee:—

	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
MYSORE.						
Sunsay	9. 65/-	12. 81/6	2. 74/-	2. 86/6	6. 72/-	80/10
Supipaykhan	49. 92/-	22. 87/6	5. 82/6	5. 98/-	4. 80/6	90/1
Goomenkhan	39. 92/-	19. 88/-	3. 80/-	61. 100/-	2. 81/-	90/9
Abragay	45. 93/-	17. 89/-	3. 83/-	6. 103/-	3. 81/-	92/-
Rungiahs	70. 90/-	34. 86/6	...	10. 98/-	13. 80/-	...
X. C. K.	24. N.	6. 88/-	1. 83/-	3. 99/-	3. 84/-	...
Mocket, S. & L...	115. N.	44. N.	6. 84/6	29. N.	12. 84/-	...
Baithney	35. N.	12. N.	1. 81/-	12. 102/-	7. 82/-	...
Wallagundy	83. 95/-	41. 89/6	5. 85/-	15. 107/-	...	...
Bakkekhan	10. 94/-	1. 90/-	1. 83/-	...	...	...
Cannon, M.	59. 98/-	30. 94/6	3. 88/6	7. 121/6	1. 84/-	98/2
Cannon, M.	25. 97/-	...	...	8. 109/6	1. 81/-	...
Cannon, S.	31. 96/6	30. 93/6	10. 93/6	6. 112/-	8. 84/-	94/7
COORG.						
Havina Kadu	32. 88/6	11. 84/6	1. 80/-	3. 92/-	5. 10/-	86/10
Covercooly	36. 92/6	26. 89/-	4. 84/6	9. 100/-	3. 83/6	91/5
Covercooly	52. 93/-	24. 90/-	...	11. 101/-	10. 85/-	...
Haltary	129. 92/6	57. 88/-	...	13. 99/-	25. 83/-	...
Hallary	20. 92/6	27. 87/6	6. 84/-	5. 96/6	4. 80/6	89/8
Cillicutty	20. 93/6	14. 88/6	3. 83/6	3. 98/6	5. 80/6	...
Cillicutty	16. 92/6	7. 86/6	...	1. 94/-	7. 79/6	...
Santikoppa	37. 88/-	20. 85/6	...	7. 98/-	9. 82/6	...
Santikoppa	93. 92/-	29. 87/6	...	11. 100/-	19. 84/-	...
St. Edmonds	23. 89/-	17. 86/-	...	4. 94/6	3. 81/-	...
Netley	27. 87/-	3. 84/-	...	3. 94/6	5. 81/6	...
NELLIAMPATHYS.						
Ghundra Mulla	41. N.	23. 85/-	3. 80/6	7. 93/-	5. 79/-	...
Lily	41. 88/6	50. 86/6	14. 84/-	8. 94/-	9. 82/-	87/-
SHEVAROYS.						
Moganaad Peak...	20. 93/6	16. 90/6	6. 87/-	...	7. 85/6	...
NILGIRIS.						
Waterfall	...	32. 88/-	7. 82/6	...	3. 80/6	...

R. D. A.

CORRESPONDENCE.

Wartyhully Estate, Saklaspur,

October 31st, 1917.

THE EDITOR,

Planters' Chronicle.

Tonnage of Coffee.

Dear Sir,—In view of the final refusal by the Secretary of State for India to allot any tonnage for the shipment of the balance of last season's coffee crop now remaining in the country, I shall be obliged if you will kindly give some information in the columns of your paper as to what reply, if any, was received from the Government of India to resolution No. 10, in the P. C. of September 8th regarding "Government purchase of existing stocks of coffee."

Our case is a very strong one—Government have sanctioned the import into the U. K. of 6260 tons of Indian Coffee and now find they cannot give us tonnage to carry it all. It seems only just and right, therefore, that they should take it off our hands by purchasing it themselves.

I need hardly point out that the decision of the Home Government not to allow any coffee to be shipped to the U. K. this season is likely to very much aggravate the already serious position of the coffee planter.

If no favourable reply has been received to the above resolution will the U. P. A. S. I. again strongly represent our difficulties to the Government of India and press for a favourable reply without delay.

At the Annual Meeting of the U. P. A. S. I., in moving the above resolution I suggested Rs. 45 per cwt. for parchment and Rs. 40 for native coffee as a fair average price for them to buy it in at. Although these seem low figures, I think most of us would agree to them in order to see the stocks now in the country got rid of.

Until the balance of last season's crop is removed from sight we can have little hope of any market for our crop now on the tree.

Mr. Brooke Mockett who, with Sir John Rees and others, has done so much to help planters through this crisis writes to me by this mail :—
"We have arranged some tonnage for Malabar Tea.....If Government refuse to give tonnage for the balance of the 6260 tons of coffee already sanctioned import to U. K. the U. P. A. S. I. should demand that Government assists planters either by taking over the coffee at a fair valuation or by advancing quite three-quarters of its value." It is surely up to Government to do something to help us on these lines as they cannot give us tonnage and I hope the U. P. A. S. I. will take strong action in the matter before it becomes too late to be of any use to us.

I am, dear Sir,

Yours faithfully,

C. LAKE.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 46.]

NOVEMBER 17, 1917.

[PRICE AS. 8.]

THE U. P. A. S. I.

(INCORPORATED.)

Editorial.

A Press *Communique* issued by the Government of Madras states that His Excellency the Viceroy and Governor-General of India and the Right Honorable the Secretary of State for India will visit Madras about the middle of December. The visit which will be for a period of about a week will be of an informal nature and His Excellency will not receive any addresses.

The Coorg District Gazette notifies that the Hon'ble the Resident in Mysore and Chief Commissioner of Coorg will proceed on a tour to Coorg on 14th November and will arrive at Fraserpet on 15th.

The Deputy Director of Agriculture, Planting Districts left Bangalore on 16th for a short visit to the Shevaroyis. He will be accompanied on this tour by the Government Mycologist and the main object of the visit is to investigate the Fruit Industry in these hills more especially the imported fruit trees and their diseases.

The Secretary of the U. P. A. S. I. who has been away on short leave is expected to return to headquarters on 18th and will resume his duties on 19th.

MILITARY HONOURS.

Two members of the Wynaad Planters' Association have received the Military Cross. Lieutenant R. G. Davies, Royal Artillery, got it for putting out a fire on an ammunition dump under heavy shell fire. He has already been twice wounded. Second Lieutenant T. S. Dobrie, Royal Artillery, who has also been wounded, on his way to a forward post with one man came upon 13 Germans and took them all prisoners. We congratulate these gallant officers on their well deserved honours and the Wynaad Planters' Association upon the glory which is reflected upon them.

SOUTH INDIA PLANTERS' WAR FUND.

			RS.	A.	P.
Amount previously acknowledged	...	...	66,761	8	2
Mr. A. C. Morrell	...	...	25	0	0
Mr. J. M. Wilkie	...	...	120	0	0
Total	...	...	66,906	8	2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.

The Destructive Insects and Pests Act 1914.

With further reference to this Act a G. O. No. 3054 dated 28th September, 1917 has just come to hand concerning it. In a letter from the Deputy Secretary to the Government of India to the Chief Secretary to the Government of Madras it is stated that "the importation of living plants will, with certain exceptions, be permitted only at the ports of Bombay, Calcutta, Madras, Rangoon, Karachi, Tuticorin, Danushkodi, and Negapatam and that they will be subjected to fumigation with hydrocyanic acid gas at the port of entry. The work of fumigation will be entrusted to the customs staff, as an experimental measure for a period of one year in the first instance. The Government of India understand that the customs staff will not find any difficulty in carrying out the operations involved; but if necessary the Imperial Entomologist will demonstrate the methods by personally visiting the ports in question. The Government of India also understand that the cost of fumigation will be small and they have therefore decided not to levy any fees from importers for the present and to meet the cost from public revenues. The French and Portuguese Possessions in India and the Travancore and Cochin Durbars have expressed their willingness to co-operate by introducing and enforcing the necessary restrictions."

The clauses in the Act which affect planters are the following:—

5. Rubber plants shall not be imported into British India by sea unless they are accompanied by an official certificate that the estate from which the plants have originated, or the individual plants, are free from *Fomes senitostus* and *Sphcerostilbe ripens*.

7. Coffee plants shall not be imported into British India by sea from America (including the West Indies) except by the Madras Department of Agriculture.

8. Coffee, flax, berseem, and cotton seeds shall not be imported by land or by sea by letter or sample post.

9. Coffee seeds shall not be imported into British India by sea from America (including the West Indies) except by the Madras Agricultural Department.

Except in the case of Coffee from countries specified above the Act does not include seeds which may be imported without restriction.

Bark Rot of Rubber.

The Ceylon Government Mycologist in submitting a statement recently to the Committee of Agricultural Experiments showing the incidence of Bark Rot on the rubber trees under tapping experiments at Gangaroowa, said that the figures did not disclose any relation between the prevalence of Bark Rot and the system of tapping adopted, but that the disease was evidently worst in those sections which had not been thinned out.

RUDOLPH D. ANSTEAD,

Dy. Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.**North Mysore Planters' Association.**

*Proceedings of the Annual General Meeting held at Balehonnur,
on 8th October, 1917.*

PRESENT.—Messrs. C. H. Browne, C. Danvers (President), C. P. Reed, C. S. Crawford, F. W. Hight, C. H. Godfrey, E. H. Thompson, W. H. Reed, (Honorary Secretary).

HONORARY SECRETARY'S REPORT AND ACCOUNTS.—Gentlemen,—The number of estates on the Register is now 44 representing a total of 8108½ acres. One estate of 100 acres has seceded to the South Mysore Association. Two estates representing 392 acres have resigned. Owing to the difficulties we have experienced in shipping and disposing of our coffee I rather expected some delay in getting subscriptions in so I withdrew Rs. 500 from our Fixed Deposit. However I am glad to say that most members have paid up their subscriptions in full, only eight estates with a total acreage of 1418 acres remain in arrears.

A further sum of Rs. 2,000 was also withdrawn and invested in 1920 5½% War Bonds, leaving a balance of Rs. 1,500 in Fixed Deposit with the National Bank of India.

The revenue for the past year has been from subscriptions Rs. 3,150-15-0, interest from the National Bank Rs. 220-4-8, and a cash balance of Rs. 1,434-2-0 brought forward from last year, total Rs. 4,805-5-8. Against this there is an expenditure of Rs. 4,338-13-9. The total funds to the credit of the Association are, Rs. 2,000 1920/ 5½% War Bonds, Rs. 1,500 on Fixed Deposit with the National Bank of India, and a cash balance to carry forward of Rs. 966-7-11.

BENEVOLENT FUND.—I have remitted Rs. 60 to the Secretary U. P. A. S. I. A balance of Rs. 100 is still outstanding.

Gentlemen, I beg to tender my resignation of the Honorary Secretaryship.

N. M. P. A. SUBSCRIPTION AND RULE 3.—The Annual Subscription of As. 4 per acre fixed at the last meeting was confirmed. Rule 3 to be altered accordingly.

LONDON SOUTH INDIA PLANTERS' ASSOCIATION.—Mr. Richardson's proposition was read and fully discussed. Mr. C. H. Browne proposed and Mr. W. H. Reed seconded the following resolution "That this Association approves of a branch of the U. P. A. S. I. being formed in London, but considers the collection in London of subscriptions on a large number of estates in India to be impracticable and that the necessary funds should be collected by the U. P. A. S. I. in India by increasing their subscription. This Association sees no necessity for a large expenditure at Home and considers that the business may be done by the engagement of a clerk and a room."—Carried unanimously.

ST. GEORGE'S HOMES.—The Rev. J. Breedon's letter dated 8th September asking for help towards the upkeep of the Homes was read. The meeting voted a sum of Rs. 150 for this most deserving cause.

CHANGE OF U. P. A. S. I. OFFICE TO MADRAS.—Letter dated 13th September, 1917 was read. The meeting was against the change also the increase of the Secretarial Staff.

MYSORE CHAMBER OF COMMERCE.—Read correspondence from the Mysore Chamber of Commerce of which the Association entirely approves and places on record its appreciation of the great services rendered to the planting community. It was resolved that the Association joins the Chamber, and that all members be asked to join.

Messrs. C. Danvers, C. S. Crawford and T. Hunt, were elected for the estimating of crops.

GOVERNOR'S VISIT TO MANGALORE.—Messrs. C. H. Godfrey and S. L. Mathias were elected to represent the Association. Instructions were given to the delegates regarding the Arsakere-Mangalore Railway and Yellneru Ghant road. Freight and Shipping to be discussed in conjunction with the S. M. P. A. and B. P. A. delegates.

U. P. A. S. I. DELEGATES REPORT.—Mr. C. H. Godfrey read his report and a vote of thanks was accorded him for representing the Association.

ASSISTANT SCIENTIFIC OFFICER.—Mr. C. H. Godfrey was appointed to wind up the affairs of the Assistant Scientific Officer.

RECENT RELEASE OF INTERNED PERSONS.—The following resolution was passed unanimously.

Resolution passed unanimously at the Annual General Meeting held at Balehonnur on the 8th October, 1917.

"This Association views with deep regret and apprehension the over-ruling of the Madras and other Provincial Governments in the well considered measures taken by them for the checking of incitement to disorder and disloyalty.

The release of Mrs. Besant and her associates has weakened the authority and prestige of all Government in India regrettably and dangerously, and while befogging the minds of the peasantry, has only inflamed those of her followers, as may be seen from the speeches of her lieutenants and the increasingly insistent Home Rule demands for the immediate release of all persons interned under the Defence of India Act, and it considers that the over-ruling of men on the spot who have studied India long and sympathetically by a new and inexperienced Secretary of State is superfluous and unadvisable.

This Association considers that Mrs. Besant and her party in advocating immediate Home Rule are doing the greatest disservice to the mass of the population, and is of opinion that if the Government of India shows further weakness in yielding to interested clamour it will betray its sacred trust to the dumb millions of India, who are only beginning to be emancipated from religious, social, and agrestic slavery, and whom it would be a crime to hand over to the mercies of a self-seeking minority.

This Association also protests against the language of many extremists, who endeavour to buttress their premature claims by disingenuous and misleading statements, coupled with abuse of Europeans generally, and British Rule more particularly, and considers that all discussion on Reform (which is recognised as necessary) should be delayed until after the war.

This Association also resolves that the *Madras Mail* be thanked for its sane, virile, and energetic attitude in this matter, and wishes it all success in its endeavours to champion the cause of good Government.

LETTERS READ.—Deputy Director of Agriculture's letter dated 11th September, 1917 *re* Seed and Sprayers. Mysore Government's No. 28—36 dated 13th September, 1917, recruitment in Mysore for Indian and local army. Mysore Revenue and Survey Department dated 17th September, 1917 *re* Survey of Mudigere Taluk.

ELECTION OF OFFICE BEARERS.—The following gentlemen were elected for the year 1917-18:—

President	... C. DANVERS.
Vice-President	... C. P. REED.
Honorary Secretary	... W. H. REED.

(Signed) W. H. REED.
Honorary Secretary.

Anamalai Planters' Association.

Minutes of an Extraordinary General Meeting of the Anamalai Planters' Association, held at 10-30 a.m., on November, 5th 1917, at the Club.

PRESENT:—Mr. J. Hatton Robinson, (Chairman), the Hon'ble Mr. E. F. Barber, Messrs Marsh, Simcock, Sladden, Brewer, Biddell, Scott, Fraser, Cooper, Hardy and C. R. T. Congreve, (Honorary Secretary.) **Visitor.**—Mr. H. Waddington. *By Proxy.* Mr. J. H. Ireland-Jones.

The Minutes of the Extraordinary General Meeting held on 10th October, 1917 were read and confirmed.

ACCOUNTS.—Mr. Congreve suggested that auditors be appointed to audit the year's accounts before the Annual General Meeting.

Proposed by Mr. Fraser and seconded by Mr. Simcock that Messrs. Sladden and Scott be asked to undertake the audit.—(Passed unanimously).

COMMITTEE TO DEAL WITH DISPUTES UNDER DISTRICT LABOUR RULES.—Mr. Fraser in introducing this subject said that at several meetings a considerable amount of time had been taken up with discussions under Labour Rules, and that if a Committee could be formed to deal with inter-estate disputes under Labour Rules it would tend to shorten meetings and would relieve the Chairman and Honorary Secretary of a considerable amount of work. He therefore proposed the following resolution:—

“That a Labour Committee be elected to deal with any inter-estate differences that may arise under the District Labour Rules and that the finding of the Committee be laid before the next General Meeting of the Association for final decision.”

Mr. Simcock said that if the disputant disagreed with the finding of the Committee he concluded he had a right to appeal to the Association, Mr. Scott also spoke in agreement with Mr. Simcock.

It was pointed out that under the proposed resolution all decisions of the Committee would have to be finally passed by the Association, Mr. Barber in support of Mr. Fraser's Resolution said that he thought it would be an excellent thing to have a Committee to thrash out all the points of any dispute which arose.

The Chairman proposed that the Chairman and Honorary Secretary be permanent members of the Committee and have power to select 3 members of the Association to deal with each case as it occurred.—(Both resolutions were passed unanimously.)

MADRAS EXHIBITION.—There was considerable discussion as to whether the Association should support the Exhibition or not, and the general feeling was that if supported, it should be in a whole-hearted manner. The following Resolution proposed from the Chair and seconded by Mr. Congreve was carried:—

“That this Association do support the Madras Exhibition through the U. P. A. S. I. and do send a Representative to the Exhibition to look after the interests of the Exhibitors from this District.”

Mr. Marsh moved the following amendment which was seconded by Mr. Simcock and lost:—

That this Association do not Exhibit at all.

It was proposed by Mr. Congreve and seconded from the Chair that Messrs Pittock, Scott and Fraser be asked to act on a Sub-Committee to arrange everything with reference to the Exhibition.—(Carried).

DELEGATE TO CALICUT MEETING.—Proposed by Mr. Congreve and seconded by Mr. Marsh that Rs. 100 be voted to Mr. Simcock for his expenses in attending the Calicut Meeting.—(Carried unanimously.)

STANMORE PARALAI CASE UNDER DISTRICT LABOUR RULES.—After discussion it was agreed that Mr. Simcock's claim could not stand.

PROHIBITION OF IMPORT OF COFFEE TO UNITED KINGDOM.—Mr. Marsh in support of his resolution which was seconded by Mr. Congreve and carried unanimously, spoke as follows:—

Mr. Chairman and Gentlemen,—In a circular letter, dated 22nd October, my Agents inform me that the Shipping Controller has definitely refused to find space for the export of Coffee from this Country to the United Kingdom. I take it, not only for the balance of last year's allotment, which was definitely promised to us, but also for the whole of this season's output.

Although this circular letter says this refusal is final, I consider that we should still go on agitating for I cannot believe that the Home Government can possibly realize what the total prohibition of export of Coffee to the United Kingdom will mean to a large body of European and Indian Planters.

The Coffee Industry is almost entirely in the hands of private owners—most of them without much outside capital—and they are entirely dependant on the sale (in many cases of the forward sale) of their crops for the financing of their estates and for their livelihood.

Last year's partial prohibition hit many very badly and unless space can be provided for anyhow a proportion of the present crop, ruin is in a large number of cases certain.

It must not be forgotten that when large quantities of Coffee were being allowed to be imported from Brazil and some, anyhow; from Mombassa, we were prohibited from exporting the coffee, that we were promised shipping would be provided for, and although there may be good reason for the import of foreign coffees, still I do not think it should be lost sight of that India is an integral part of the Empire and that therefore Coffee Planters have a right to demand anyhow equal, if not greater, privileges than foreign countries (such as Brazil). The total space necessary to carry the whole of this season's coffee crop would be very small, and it is difficult to see why one steamer cannot be provided for this purpose. I therefore propose the following Resolution:—

"That in view of the pronouncement that the shipping controller has definitely refused to find space for the export of Coffee from this country to the United Kingdom the U. P. A. S. I. be asked to bring forward the matter again through the Government of Madras and through the Empire Producers' Association in London, pointing out that unless space can be provided for this season's Coffee Crop, or unless arrangements can immediately be made by Government for the purchase of same, certain ruin faces a large body of European and Indian Planters—at the same time mentioning the small amount of space which would be necessary to carry the total crops to be harvested this season."

Mr. Barber informed the meeting that he considered all Associations interested in Coffee should send a cable direct to the Secretary of State. This suggestion was adopted and the Honorary Secretary was instructed to send the following cable:—

"Predicament of Coffee Planters is serious pray you arrange with Shipping Controller for sufficient space for our small requirements."

ROADS.—Mr. Marsh proposed the following resolutions which were seconded by Mr. Congreve and passed unanimously :—

- (1) That Government broaden out the present Paralai-Castle-croft road as far as the Post Office and construct the short length from that point through the township to the Club and broaden out the present road from the Club to Monica.
- (2) That Government maintain departmentally the present ghaut road and the circular road B E, D C, V B as a first class road.
- (3) That this Association is prepared to take over the maintenance of all other roads in the district at present totalling some 22 miles of Cart Road and 22 miles of Bridle-path also all necessary public roads which will in future be constructed, but that Government be asked to give a yearly grant-in-aid towards their up-keep; also to hand over sufficient land and quarries on either side of these roads for maintenance purposes.
- (4) That funds for the up-keep of these Roads be raised to the requisite amount on a mile acre basis; of course only those estates using the Roads contributing to their up-keep.
- (5) That Government shall have the right to constantly inspect all Roads and if not properly kept up, shall be at liberty to refuse all or part of its maintenance allowance until such time as they are properly repaired, and that in all matters of dispute the Collector's decision shall be final.
- (6) That the Anamalai Planters' Association become a corporate body and employ an overseer and possibly later on a European assistant on the Roads, under the orders and directions of the Executive Committee of the Association.

In bringing these forward he spoke as follows :—

Mr. Chairman and Gentlemen,—As the original pioneer of this district, I beg to submit my views on the subject of its roads.

About 1896 the Government of Madras threw open some 80 square miles of land for planting purposes, and as a condition of the land being taken up undertook to construct roads through the middle of the district (G. O. No. 495 Revenue, dated 28th September 1896) which reads as follows :—

CLAUSE 6.—The Government is prepared to undertake the construction of a main road through the land which it is now proposed to lease out for cultivation, and the Public Works Department will be requested to arrange for the immediate tracing of such a road with the necessary principal branches. The requisite width on either side of this tracing should be reserved to Government, and excluded from lease.—The maintenance of the main road when completed and construction and maintenance of the necessary branch roads for the use of the public will devolve on the local boards. (Forest No. 212.)

In pursuance of this policy the present Ghaut, feeder roads and bridle-paths were constructed between 1897 and 1905, and they have since been kept up by Government.

The original idea was to make a first class road through the centre of the land, and in 1897 or 1898 a trace through Iyerpadi, Karamalai, Castlecroft, Sirukundra, Udamanparai and back to Monica was suggested as most suitable to open up the country.

As however the land being opened at that time lay along the present road from Paralai to Monica it was suggested by the Planters and agreed to by Government that this road be first constructed, but that the other line be kept as a bridle-path so that at some future date when that side of the district was being developed it might be turned into a cart road.

At a later date the road was continued from Monica down through Korringamudi to Kalianapandal, the road from Paralai through Puthuthotam and on to Castlecroft and the Stanmore road were constructed and bridle-paths were opened on various lines through the district.

These subsequent roads were called feeder roads and were not so completely metalled or made so broad as was the main road, but at the time they were cut it seems reasonable to suppose Government's intention was to open them up into main roads when the district was more developed and they were only started as feeder roads at the time, as it was considered that the traffic along them was not sufficient to make it necessary to spend more money on them—At the same time it can never have been contemplated by Government that these roads should subsequently be abandoned, but that they should be maintained in a proper condition (*Vide G. O. above referred to*).

In 1912 it was suggested that all the feeder roads and bridle-paths should be maintained by the Planters using them, Government subscribing a yearly maintenance allowance, and with the exception of one short length of road which had to be resumed by Government, this policy has since been continued with, I think you will agree, satisfactory results. Somewhere about 1904-05 Government stopped granting any further lands for planting purposes, but in 1912 (G. O. No. 2969, dated 3rd October 1912) they again agreed to throw open the land, but made it a condition that no new roads should be constructed or maintained by Government, but if necessary should be made by the purchasers of the land.

By putting in this stipulation Government undoubtedly recognised that part of the understanding on which lands had previously been leased, was that roads should be constructed and maintained by them.

In Mr. Barber's letter to our Chairman, dated the 27th September 1917, he says that feeder roads are a subject full of pitfalls, and that as far as he is aware the position in the Anamalais has no parallel elsewhere in the Presidency. This may be so, but there can be no question that when the land was originally thrown open for planting purposes, Government undertook to construct roads, (*Vide G. O. above referred to*), and their subsequent policy in developing feeder roads, and in making it a proviso in their agreements to lease new lands on and after 1912 that no new roads should be constructed by them, they admit their original liability in this respect.

It must not be forgotten by Government that a very high assessment was agreed to by the Planters at the original conference held about 1896 when the terms on which the land should be thrown open for plantation purposes were discussed, and it was certainly on the understanding that one of Government's obligations was the maintenance of necessary roads that the Planters agreed to this assessment.

When the Governor visited this district last year an attempt was made to put the whole matter of roads on a satisfactory basis—Unfortunately I was absent on leave at the time of his visit, and was therefore unable to point out that Government originally undertook to construct and maintain roads in the district, and in my opinions this very important point has been lost sight of.

It is excellent hearing that Government have agreed to construct the short length of road through the township, but I venture to point out that this road is being opened for purposes of developing the township and is therefore on a somewhat different footing to the ordinary district road.

It has always I believe been recognised that eventually a township would become a necessity in the district and that to make it a feasible proposition certain roads would have to be built through it, and I would point out that although the proposed short length of road will be of very great benefit to the district, it will be more as a township road than as a district one, and that the rents, etc., charged for building sites on the township will be available for its up-keep.

Mr. Barber proposes that we should agree to Government's suggestion that they construct the short length of road through the township and keep up the Circular Road BE, DC, VB and the Ghaut, and that the Anamalai Planters' Association takes over all the rest of the roads in the district. To this suggestion I think we might agree if it is not lost sight of that in G. O. No. 495 Revenue, dated 28th September 1896, Government agreed not only to construct, but also to maintain the necessary branch roads in the district, which they have so far only partially done, and that by waving our claim for the construction of the further necessary branch roads, we have the undoubted right to ask Government for at least a substantial yearly grant-in-aid towards their up-keep.

REORGANISATION OF THE U.P.A.S.I. AND LABOUR DEPARTMENT.—Considerable discussion took place on this subject. Mr. Barber gave the meeting his views on the subject and the following resolution, proposed from the Chair and seconded by Mr. Marsh, was carried unanimously:—

"That this Association agrees to support the proposal for the reorganisation of the U. P. A. S. I. and the Labour Department on a basis of inclusive subscription and suggests the following acreage rates as equitable:—Tea Rs.2 per acre; Rubber Rs.1-12 per acre; Coffee and other products Rs.1-4 per acre, and that a copy of this resolution be sent to all District Associations asking for their support, pointing out that all the above mentioned products are grown on the Anamalais."

VOTE OF THANKS.—The Chairman in moving a vote of thanks to Messrs. Barber and Waddington for attending the meeting said:—

Gentlemen,—Before we close our meeting, I have a very pleasant duty to perform, and that is to express on behalf of this Association, as well as on my own, our grateful appreciation of the compliment the Hon'ble Mr. Barber and Mr. Waddington have paid us by attending here to-day.

As we all know both these Gentlemen are extremely busy men who have various appeals and summons claiming their attention every day, and their presence on this occasion must be taken as still further evidence of the kindly and sympathetic interest they take in those matters of vital importance to this District, some of which have been under discussion here to-day. (Passed with acclamation).

With a vote of thanks to the Chair the meeting terminated.

(Signed) J. HATTON ROBINSON,
Chairman.

(„) C. R. T. CONGREVE,
Honorary Secretary.

MARKET, PRICE, AND STATISTICS.**Coffee.**

Offerings in auction have been:—

	25th Sept. 8th Octr.	Since 1st Jan.	Last year.
East India	3,089	37,049	27,102
Costa Rica	830	75,601	93,982
Other Milds	1,633	49,384	48,477
Brazil	2,942	74,840	89,232
Robusta	Nil.	724	1,453
B. E. A.	Nil.	4,971	13,040
Uganda	Nil.	11,486	

Messrs. T. H. Allan & Co., say in their Weekly Report dated 9th October:—"The market has been very firm for all suitable qualities, prices being particularly strong for the lower grades (B. C. etc.) as at present level buyers will not pay for "bold" if they can make cheaper sizes serve their purpose."

The following prices have been obtained for South Indian Coffee:—

	No. 1.	No. 2.	No. 3.	P.B.	T.	Aver- age.
MYSORE.						
Cannon, M. ...	131. 97/-	52. 92/6	...	16. 111/-	...	...
Cannon, B. ...	20. 103/-	30. 97/-	...	5. 115/6	...	...
Mockett ...	100. N.	60. 90/-	...	20. 04/-	25. 84/6	...
Maynards ...	75. 92/-	95. 88/6	27. 85/6	27. 97/-	8. 84/-	90/1
H.C. S. ...	120. 96/-	20. 92/-	...	20. 109/6	20. 86/6	...
Hospet ...	23. 91/6	14. 87/6	2. 82/-	10. 96/6	9. 82/6	89/7
Chickilly ...	69. 89/6	29. 88/6	2. 81/-	6. 93/6	8. 81/-	88/3
H.C. S. ...	120. 96/-	20. 92/-	...	20. 107/6	...	...
H.C. SS. ...	39. 95/-	7. 90/-	1. 82/-	7. 108/6	4. 84/6	95/1
Goodytota ...	24. 91/-	23. 88/-	7. 82/6	9. 95/6	9. 82/-	88/7
COORG.						
Santagherry ...	42. 99/6	21. 86/6	...	6. 95/6	9. 81/6	...
	41. 93/6	25. 89/-	...	7. 99/-	...	...
Covercooly ...	63. 93/-	46. 90/-	...	18. 102/-	14. 84/-	...
Hallery ...	31. 91/-	26. 87/6	5. 84/-	5. 96/-	5. 83/-	82/-
Allicutty ...	20. 92/6	40. 88/6	...	9. 98/-	14. 83/6	...
WWF. B. ...	31. 92/-	25. 89/-	...	...	...	...
Arbuthnots ...	24. 92/-	6. 86/6	...	3. 99/-	2. 82/-	...
Binnys ...	200. 89/-	72. 85/-	...	...	...	...
NILGIRIS.						
Victoria ...	30. 92/-	24. 88/-	4. 81/-	5. 94/-	...	...
Oland ...	43. 94/6	47. 91/-	...	...	...	...

Tea.

Messrs. T. H. Allan & Co. in their Weekly Report dated 9th October say:—"Everything except the commonest meets with strong competition and "free" teas realise very high prices,"

R. D. A.

CORRESPONDENCE.**Coffee Export.**

The Chairman, U. P. A. S. I. is of opinion that it is advisable that all Associations should send a wire on this subject not of the same text nor on the same date. These wires might be sent through the U. P. A. S. I. to insure them reaching their destination on different dates.

The following telegrams have already been sent:—

To SECRETARY OF STATE FOR INDIA, 31st October, 1917,
London.

Position of South Indian Coffee Planters now serious stop Food Controller permits restricted imports United Kingdom but Shipping Ministry refuses space pray you will get Shipping Ministry orders reconsidered and so help situation.

BARTER,
Planting Member,
Madras Legislative Council.

To SECRETARY OF STATE FOR INDIA, 31st October 1917
London.

Without Shipping Ministry grants space for Coffee or Government meets situation Coffee Planters will have to close down.

NICOLS,
Chairman,
United Planters' Association, South India.

To SECRETARY OF STATE FOR INDIA, 13th November, 1917.
c/o His Excellency the Viceroy,
Delhi.

Request immediate steps be taken inform us what arrangements will be made allocating space shipment South Indian coffee crop this season.

SECRETARY,
United Planters' Association of South India.

Our Day.

Attikan P. O.
Mysore Province, 8th Nov., 1917.

To THE EDITOR,
Planters' Chronicle.

Dear Sir,—“A Planters' Produce Stall” is being held at the Fete for “Our Day” in Bangalore, on 12th, 13th and 14th December.

I hope that a great many Planters will feel inclined to send some of their produce—5 lbs. and upwards—for the stall, so that most estates in South India may be represented. Gifts of tea, coffee, cardamoms, pepper, fruit, jams, etc., will all be greatly appreciated.

All gifts should be sent to

Messrs. R. A. Sattar & Co., Bangalore
marked “Our Day” and the name of the Estate.

Mrs. RANDOLPH MORRIS,
Attikan Estate,
Attikan P. O.,
Mysore Province.

Coorg Planters' Association.

Kariekollie,
Mercara, 9th November, 1917.

THE SECRETARY, U. P. A. S. I.,
Bangalore.

Coorg Planters' Association Note of Meeting in P. C. dated the
3rd instant.

Dear Sir,—There is an error in the copy of letter (page 577) sent you for insertion in the body of the notes, which I shall be obliged if you will correct in your next issue.

Instead of the sentence reading: "It is considered, therefore, that under this reservation *four ships*," &c.
Please read:

"It is considered, therefore, that under this reservation YOUR SHIPPERS should be able to find accommodation for at least a part of your consignment of coffee," etc.

You will note the different wording conveys quite another sense.

Yours faithfully,

A. J. WRIGHT,
Honorary Secretary,
Coorg Planters' Association.

Tonnage of Coffee.

Balur P. O.,
8—11—17.

THE EDITOR,
The Planters' Chronicle.

Sir,—Mr. Lake's timely letter in your issue of the 3rd instant represents the refusal of the Shipping Controller to provide any tonnage for coffee as "likely to aggravate the position." This is a very mild term to express the situation for many of us. I know men who can only carry on till December—others who can go on to March—others who contrived to borrow from Banks or Sowcars on their growing crops, and who will soon be in a very tight place indeed, if they cannot ship or sell locally. I know none but a few big owners who can carry on next season under present conditions.

The local market is unlikely to be much help in the absence of shipping facilities.

Government seems supine, and it may be our own fault that they have not been more hustled—but we have been lulled to sleep by the idea that we would be able to ship under the "permission to export." We now have to face the fact that a large amount of last season's crop remains in the country, and that there seems none but a very limited market available for that, and for prospective crops.

Government, as Mr. Lake says, should either buy our produce, or advance on it; and I trust that the Chairman of the U. P. A. S. I. and the Planting Member of Council will see to it that Government is fully enlightened as to the situation. Starvation seems to be within measurable distance for some of us.

Yours faithfully,
C. DANVERS.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 47.]

NOVEMBER 24, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

The Deputy Director of Agriculture, Planting Districts will return to headquarters on Tuesday 27th instant.

The Director of the Labour Department returned to Bangalore on the 21st morning and will leave for the Chingleput Division on the 11th instant after which date his address will be "Upasi Office, Chingleput" until further notice.

We publish an article from the Scientific Department dealing with such subjects as a Swarm of Insects, German Coconut Trade in South India taken over and Ceylon Administration Reports.

We publish the third quarterly Proceedings of the South Travancore Planters' Association. Also the Proceedings of the Annual General Meeting of the Bababudin Planters' Association. We have pleasure in publishing the Minutes of a Meeting of the Kadur and Hassan Motor Unions, and should welcome the formation of such Unions in other Districts.

At the request of the Director, Labour Department, we publish some remarks on the work of the Labour Department.

Mr. Thomas Hunt furnishes us with a letter on the Re-Organisation of the U. P. A. S. I. which will be found in our correspondence columns.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	...	66,906	8 2
" H. R. C. Snookers"	...	27	8 0
Mr. H. Waddington	...	30	0 0
Mr. K. J. Lysons	...	260	0 0
Mr. A. Ff. Martin	...	75	0 0
Mr. L. G. Kirk	...	64	8 0
Total	...	67,363	8 2

SCIENTIFIC DEPARTMENT, U. P. A. S. I.**A Swarm of Insects.**

Last July a correspondent sent us some specimens of a small brown bug and gave the following account of a somewhat remarkable experience: "I am situated on the western, or monsoon, side of a big hill. On the 1st July I climbed it and on crossing the top I found the whole hill one mass of these insects, every tuft of grass held thousands, if not millions, of them; as we walked along they rose in clouds. Eventually I got into the top of my coffee and from a short distance it appeared to have suffered from a cyclone, the shade trees had their branches bent or broken and lying about all over the place. On getting near I found it was due to the leaves and branches being laden with these insects. When I tell you that branches thicker than my arm which would have supported a man without breaking were snapped off you will form some idea of the number there were hanging on to it. The coffee was also covered but to a less degree. You will notice that there were none on the weather side of the hill and beyond damage done by their weight they seem to have no evil designs on vegetation."

The insect has been identified by the Imperial Entomologist as a *Pentatomia* Bug, *Ochrophara montana*.

Such migrations are not uncommon on the Western Ghats but the one described above must have been a particularly large one. Some of the insects sent us were weighed and it required 1000 of them to make an ounce. Suppose that it took a weight of 12 stones to break a shade tree branch such as our correspondent describes, it would mean 2,688,000 of these insects so that they must have been present in countless millions.

German Cocoonut Trade in South India taken over.

A Bombay telegram from the Associated Press says, Messrs. Tata Sons & Co. have embarked upon another big industrial enterprise based upon business taken from the Germans who had made a monopoly of it before the war. A Company with a capital of fifty lakhs has been floated by them to develop the cocoonut industry in Southern India. The whole of the capital has already been privately subscribed all shares being taken up by a few industrial magnates of the city, and as the German capitalists made a large fortune out of this industry it promises to play an important part in the industrial development of the country now that it has been acquired by Messrs Tata Sons & Co. Valuable concessions have been granted by the Government and it is expected that the Company will make large profits. Following immediately on the announcement of the inauguration of the Tata Industrial Bank this additional enterprise which was hitherto allowed to be exploited by foreigners is being given a warm welcome. It is reported that the Tata Industrial Bank will take a share in the capital of the Company. The headquarters of the Company will be at Cochin. It is understood that the whole capital of the new Bank has already been under-written.

Commenting upon this telegram the *Madras Mail* says, a definite statement has at last been made regarding a business matter that has been anticipated for some time. We refer to the establishment of a company under the auspices of Messrs. Tata Sons & Co. to exploit the industry in cocoonut products on the West Coast of this Presidency which was in pre-war days practically a German monopoly. It is a step that all will hail with one accord as one more destined to put an end to that German peaceful penetration which has had such baleful effects all over the Empire.

When the war broke out and trade was disorganised owing to closing of enemy markets the export trade in cocoanut products received a very decided shock. It will be remembered that the Government of Madras then took steps to ascertain in England what demand existed or could be stimulated for produce thus shut out of hostile countries. Among the produce under reference were the coconut products of Malabar, South Canara, and the Laccadive Islands. Mr. E. S. Gubbay, who was then acting at Home as a sort of Trade Commissioner sent out a most unsatisfactory report one of the leading features of which was the extent to which Germany had ousted England in securing a practical monopoly of some of our chief products. While Germany was exploiting the cocoanut industry one of the most valuable in that part of India for her own benefit Great Britain had practically to go to the Philippines and South Sea Isles. It was only another instance of British commercial blindness; for the cocoanut industry in Malabar has existed from time immemorial and the opportunities of taking advantage of it must have been ours until the Germans steadily elbowed us out and forced us to go to foreign sources for the supply of a product that grew better in our own dominions than elsewhere.

Ceylon Administration Reports.

The following information is extracted from the Ceylon Administration Reports 1916:—

The population of Ceylon at the end of 1916 was estimated to be 4,547,184. The natural increase, the excess of births over deaths, was 54,766 and the number of immigrants exceeded that of emigrants by 68,125. Of this population 29 per cent. are Tamils and only 7,600 or 0·2 per cent. are Europeans.

The estimated estate population was 728,230 composed chiefly of Tamil immigrants from India and their descendants, viz., 656,501.

Among the imports for the year we notice that 2,028,793 cwts. of manure entered the Colony including the following amounts from British India:—

Bones	...	...	247,901 cwts.
Castor Poonac	...	...	255,165 „
Groundnut Poonac	...	...	576,562 „
Rape Poonac	...	...	23,076 „
Fish	...	...	125,076 „
Sulphate of Potash	...	...	2,005 „
Other manures	...	...	78,998 „

This gives a total of 1,313,773 cwts. of 64 per cent. of the total imports of manure which is derived from India. Ceylon has also indented on India for 3,780,829 cwts. of Rice, or 46 per cent. of her total import of this commodity which is the staple food of the inhabitants.

Among the Exports the following figures are of interest:—

Cardamons	...	...	2,901 cwts.
Rubber	...	...	54,509,267 lbs.
Tea	...	...	203,250,000 „

Another item of interest is the fact that the sum of Rs. 246,947 was spent by the Ceylon Government during the year on the upkeep and maintenance of the Agricultural Department.

RUDOLPH D. ANSTEAD,

Dy. Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.

South Travancore Planters' Association.

*Proceedings of Third Quarterly Meeting held at Quilon Club,
on 4th November, 1917.*

PRESENT.—Messrs. J. B. Cook (President), L. G. Knight, J. Stewart, R. Ross, W. Thom, T. Jackson, A. Macdonald, H. S. K. Morrell, J. A. Anderson, Stainforth, J. O. Gray, C. Hall, R. J. A. Moore (Honorary Secretary). Visitors: Messrs. J. Mackie, McPherson and Chatfield.

1. The Secretary having read notice calling the meeting, the Minutes of previous meeting were read and confirmed.

2. Letter from His Highness the Maharajah acknowledging receipt of the Association's congratulations on the occasion of His 60th Birthday was read. Letter from Mrs. Jas. Valentine thanking the Association for its expression of sympathy on the occasion of the death of her husband, Mr. Jas. Valentine of Poonmudi Tea and Rubber Co., was read. Letter from U. P. A. S. I. asking for specific instances of hardship and expenses in connection with the present procedure adopted for drills under the I. D. F. Act was read. Members were invited to give particulars of any such cases to the Secretary so that the information might be forwarded on to the General Officer Commanding 9th Division for his consideration.

3. Mr. C. Hall read on behalf of Mr. J. B. Cook and himself, delegates to Bangalore meeting, a report of the proceedings as follows: "As instructed, we attended the Annual General Meeting of the U. P. A. S. I. at Bangalore commencing on 20th August last. It was an interesting and well attended gathering. Our Association had no special subject to bring forward. You will all have read the speeches and proceedings as reported in the *Chronicle*. A large lot of work is done in Committee and the *Chronicle* does not fully report this but in the issue dated 8th September you will find a memo. of resolutions passed. There are 28 of them and this will probably give you some idea of the work of the committees, when you consider the time it takes to get one proposal passed at our own meetings.

"**EXPERIMENTAL STATIONS.**—A Sub-Committee was appointed to discuss the questions of lease of buildings and other matters in this connection.

"**MYCOLOGIST FOR RUBBER.**—It was proposed to ask Government to engage a Mycologist for rubber alone and the 2nd part of the resolution says 'That in event of the other Rubber Associations not approving of the scheme the U. P. A. P. I. be asked if they will engage a Mycologist for Mundakayam only at that District's expense.' At our last meeting it was decided that a Mycologist for rubber was required and we therefore supported Mr. Murphy's resolution.

TEA IMPORTS INTO INDIA.—No. VII resolution is of interest to our tea men as it says 'That the Government be respectfully requested to take the necessary steps to prevent the importing of all outside tea into India as the increasing Indian consumption will afford some measure of relief in the position caused by war conditions and the present restriction of exports.' A resolution was also passed re-affirming the Association's adherence to an Imperial Preferential Tariff for both British grown tea and coffee. The matter of shipping freight and tonnage was brought forward in Resolution XIV. The opinion of the meeting was that South India did not appear to be getting fair treatment when compared with other planting districts and the Government of Madras were to be requested to receive a deputation

from the U. P. A. S. I. with reference to tonnage from Madras, Tuticorin and Malabar ports. The question of moving the offices of the Association to Madras and of increasing the Secretarial staff is to be considered by District Associations during the current year. The matter of financing the planting industry engaged the attention of the meeting for many hours. The amendment XXB 'that in view of further information which has come to light since the finance meeting in May last at Madras, this meeting do leave the settlement of the finance difficulties of planters to the Government of Madras on the advice of the conference which the Government of Madras will call as soon as full information regarding planting requirements was given' was carried. Now gentlemen if you wish to know all that led up to these resolutions it would take us some days to tell. We would therefore advise that each member of this Association takes a copy of the Book of Proceedings which the U. P. A. S. I. publishes annually. We shall be glad to answer any questions members may ask."

Several of the points passed in the report were discussed and then it was resolved to support the idea of the offices of the U. P. A. S. I. being removed to Madras.

4. Correspondence from Mundakayam Association *re* Rubber Mycologist was read and the Chairman's remarks on what was the opinion at the U. P. A. S. I. meeting in regard to this matter and its connection with the proposed reorganisation scheme with one subscription to cover all branches of the work were discussed at length and it was resolved to support the resolution of the West Coast Planters' Association with regard to the Rubber Growers' Association and the Governments of Travancore and Cochin being approached for financial support in the matter. It was felt, that in the absence of any definite information as to the proposed reorganisation scheme it was difficult for members to give definite opinions as to financial support.

5. The Secretary briefly outlined the correspondence received with regard to the Financial Conference at Ootacamund and stated that owing to short notice he had asked Mr. J. A. Richardson to represent this Association and he had kindly consented to do so. Mr. J. Mackie of Messrs. Harrisons and Crosfield had however also been present and the Chairman asked him to give a brief account of what had been done and what his opinions were on the matter.

6. Mr. C. Hall brought before the meeting the great difficulties under which the planters in the Rani Valley laboured owing to the very bad condition of the Punalur-Pattapuram Road and was supported by the other members from that district. It was decided that the Secretary should write to the Chief Engineer on the matter.

7. It was resolved that the Honorary Secretary be asked to represent the Association at the forthcoming Sri-Mulam Popular Assembly and to bring forward the question of roads and communications.

8. The Secretary was asked to write and urge that the Book of Proceedings of the Bangalore meeting be issued as soon as possible otherwise interest is lost in the matter by planters by the usual long delay in having the book published.

9. Members were urged to join the European Association.

There being no further business the meeting closed with a vote of thanks to the Chairman.

(Signed) R. J. A. MOORE,
Honorary Secretary.

Bababudin Planters' Association.

*Proceedings of the Annual General Meeting held at Santaveri,
on November 11th, 1917.*

Mr. Denne who was asked to take the chair, opened the meeting by proposing the following resolution:—

"The B. P. A. desires to emphatically protest against the vacillating
"Policy of the Secretary of State and the Indian Government,
"in over-ruling the Madras Government, and unconditionally
"releasing Mrs. Besant and other self-seeking unpatriotic
"Political agitators, and thus encouraging sedition, and Political
"agitation, and unrest, in the Country to the detriment of Law
"and order, and desires to support the U. P. A. S. I. and other
"Public Bodies in their Protest.—Carried.

The minutes of the last meeting were taken as read and confirmed.

HONORARY SECRETARY'S REPORT AND ACCOUNTS.—Gentlemen,—I have to report as follows, this meeting should have been held as in former years in October, but it was not advisable to call it earlier owing to the bad state of the Santaveri-Chickmagalur road. It would not have been fair to ask our Chickmagalur members to risk their cars over such a road, or to have asked members from this side to go to Chickmagalur for the same reason.

The subscribing acreage at June 30th was the same as the previous year, viz. 25 Estates comprising 5360 acres, but since that another Estate of 190 acres has joined bringing our acreage up to 5550 acres for the current year, and I have hopes of a still further increase.

ACCOUNTS.—Before you, you have all the books of the Association, financially we are in a sound position, having at our credit at June 30th after meeting all liabilities, Rs. 3,944-9-8. of this Rs. 2,500 is on Fixed Deposit with the National Bank of India Ltd., Madras at $4\frac{1}{2}$ per cent., since the closing of the past financial year, another sum of Rs. 1,000 has been placed on Fixed Deposit with the same Bank on which they are paying 5 per cent. interest, this makes our Reserve Fund Rs.3,500. Since our last annual meeting we have lost the services of our Assistant Scientific Officer Mr. G. N. Frattini, who at very nearly the termination of his 5 years agreement joined the I. A. R. O., while regretting his departure, this enabled us to reduce the Subscription from 8 annas to 3 annas per acre.

All subscriptions for the past year have been paid but 4 members have still to pay their subscription for the current year.

I shall be obliged if the meeting will appoint Auditors to audit the accounts. I must thank members for the help they have given me during the year, and now tender my resignation.

Proposed by Mr. Denne, seconded by Mr. Kerr, and carried, that the Honorary Secretary's report and budget be adopted.

Messrs. Wilson and Meppen were appointed to audit the accounts.

REPORT OF DELEGATE TO THE U. P. A. S. I. MEETING.—At the U. P. A. S. I. Meeting which opened on the 20th August last I represented the Association, the meeting was a very important one and extended to 5

days. In accordance with instructions I supported the resolution proposed by Mr. Hayward of S. Mysore in regard to the Hassan-Mangalore Railway which was in the following terms :—

"That this Association after considering the report of Mr. Richards the late Engineer-in-Chief, Mysore and West Coast Railway Survey, is of opinion, that the Hassan-Mangalore Railway project demands more attention, and regrets that the Planters' opinions have received so little consideration."

Under the heading of "Imperial Preference" the following moved by Mr. A. S. Dandison, Nilgiris.

(1). "To permit export of 1917-18 crop to the U. K. (2). The total prohibition of other than British grown Coffee into India, East Africa, Aden, Mesopotamia, including Persia. (3). To prohibit the export of all Coffee from the U. K. to Countries East of Port Said. (4). Also for the prohibition of Import of Coffee other than British grown Coffee into Australia, Ceylon, the Straits Settlements and South Africa." I also supported the following resolutions which were carried and are of particular interest to us :—

Proposed by Mr. Lake and seconded by Mr. Mahon.

"That the Government of India be approached with a view to their purchasing the stock of Coffee now remaining in the Country, if tonnage is not available."

Proposed by Mr. Congreve and seconded by Mr. Mahon :—

"That this Association draw the attention of the Madras Government to the fact, that out of the quantity of 6150 tons of Coffee licensed for entry into the U. K. space has been provided for 3300 only; that to all intents and purposes a complete embargo on Coffee shipment exists at present, and requests Government to arrange with the Shipping Controller for space for the balance of last year's crop up to the licensed quantity, and that application be made for a further license to import the whole or part of this year's crop."

Proposed by Mr. Godfrey and seconded by Mr. Hamilton :—

"That the U. P. A. S. I. do take the necessary steps to have a legal Form of Contract for use in 'Forward sales' of Coffee in India drawn up, the draft of same to be submitted to a sub-committee consisting of Messrs. Mahon, Congreve, and Godfrey and to all Curers with a view to safeguarding the interests of producers and buyers."

LAND TENURE AND TITLE DEEDS IN MYSORE.—This matter of great importance to us all in Mysore, was brought forward by Mr. Hamilton of S. Mysore and seconded by Mr. Godfrey of N. Mysore, the following resolution was moved and carried :—

"That this Association do strongly support the Mysore Coffee Planters in their representations to the Mysore Durbar on, (1) The hardships of the Durbars ruling in the question of granting lands on permanent Tenure, (2) The difficulties of getting title deeds for lands purchased from Indian holders; (3) The hardships of paying back assessment in one sum at 8 annas per acre per annum on lands originally granted on 30 years tenure, which owners want to transfer permanently."

ACT 13. OF 1859.—The Government of Madras having asked the U. P. A. S. I. to let them have their views in detail as soon as possible as regards the necessity for the Act, the manner in which it is administered, and the best methods of avoiding abuse of its provisions, an informal meeting of the Delegates of those Associations interested was held, at which

Mr. F. Hannington, I. C. S., Commissioner of Coorg was present, it was decided that the retention of the Act was a necessity, Mr. Congreve proposed and Mr. Lescher seconded the following resolution which was carried :—

“The U. P. A. S. I., strongly protests against the question of amending Act 13 being brought up at a time when owing to the war the Planting industry is already being handicapped, but considers that as advances cannot be abolished, a penal law is necessary in those cases where the persons advanced have no property, and little scruple in evading contracted obligations, and no difficulty in evading them. It is therefore of opinion, that Act 13 is necessary, and that punishment by imprisonment for disobedience of the orders of the Court should be retained. It has no knowledge of any abuse of the Act on the part of Managers of Estates or their Maistries, but to avoid abuse of its provisions by petty landlords and others, if such occur, considers that the Act might be amended :—

- (1) That cognisance shall not be taken of any contract that is not in writing.
- (2) or, for any period exceeding one year,
- (3) and, that repayment of the amount due should stay any proceedings taken by a Court under the Act.”

MYCOLOGIST.—Mr. G. A. D. Stuart, I. C. S., Director of Agriculture to the Government of Madras was present at the meeting, and informed us, that Government had provided funds for a Mycologist for the Planting Districts, and that only the Secretary of State's sanction was awaited but, that owing to the war there was a difficulty in securing a Mycologist, and there was also the difficulty in getting out apparatus for the Mycologist's laboratory.

I also accompanied a deputation from the 3 Mysore Associations, which was granted audience by the Dewan Sahib of Mysore. In conclusion I thank you for the honor you did me in electing me to represent you at this meeting.

A vote of thanks accorded was to Mr. S. H. Dennis for representing the Association.

PROHIBITION OF IMPORT OF COFFEE INTO THE U. K. AND FINANCING THE COFFEE INDUSTRY.—On this subject Messrs. Peirce, Leslie & Co. Ltd's. letter dated 19-10-17 and a letter received from the South Mysore Planters' Association, dated November 3rd 1917 were read.

The Honorary Secretary was requested to write the Chairman, U. P. A. S. I., to make representations to Government on behalf of the Coffee Industry, on the lines of the resolutions passed at the U. P. A. S. I. meeting held last August.

ROADS.—The following resolution proposed by Mr. Kerr and seconded by Mr. Wilson was carried :—

“That this Association do urge on the Chief Engineer in Mysore, the necessity, in view of the remarks made by the Dewan of Mysore at the U. P. A. S. I. Meeting, of having the Steam Rollers belonging to the Kadur District sent to some Firm of repute to be thoroughly overhauled and that a special grant be allowed for same, also, that drivers be employed who are at least capable of keeping the engine on the road, because, the present system is neither fair on the Overseers in charge of the work or the travelling public.”

Mr. Kerr also said with regard to the Birur-Lingudhully road, that the Honorary Secretary should be asked to write the Executive Engineer, Kadur District, that although the road may have been repaired in places, the cross drains are worse than they were before.

SANTAVERI DISPENSARY.—The Special Revenue Officer and Secretary, Malnad Improvement Committee, Kadur District's letter dated 2—10—17 was read, and the Honorary Secretary's reply was noted, it was decided to accelerate the erection of the buildings, as soon as the weather permitted.

COFFEE STEALING.—The meeting decided that the reward of Rs. 25 offered by the Association for the capture of thieves, be awarded in Mr. Denne's case if the conviction is confirmed.

The following letters were read to the meeting :—

- (1) Madras War Fund, letter from the Hon'ble Mr. E. F. Barber, dated 10—10—17.
- (2) Indian Defence Force, letter from the Secretary, U. P. A. S. I.
- (3) Wellington Convalescent troops Xmas fund.
- (4) Madras Exhibition, letter from Chairman, U. P. A. S. I.

ELECTION OF OFFICE BEARERS.—The following were elected Office bearers for the current year :—

President	...	Mr. A. C. W. Denne.
Vice-President	...	Mr. F. Hugonin.
Honorary Secretary	...	Mr. S. H. Dennis.

The meeting terminated with a vote of thanks to the Chairman and Honorary Secretary.

(Signed) A. C. W. DENNE,
Chairman.

(„) S. H. DENNIS,
Honorary Secretary.

Kadur and Hassan Motor Association.

*Minutes of a Meeting held at Mudigere T. B.,
on Saturday, the 20th October, 1917.*

PRESENT.—Messrs. S. A. Wajid, M. J. Woodbridge, M. Machiah, R. Nana-sami Rao, T. Hunt, F. Sorab, T. B. Mulla Gowda, Mahomet Houssein Sahib, A. Thomson, (Honorary Secretary).

MR. HUNT WAS ELECTED TO THE CHAIR.

Mr. Hunt proposed a vote of condolence to the relatives of the late Mr. K. Krishna Iyer, who was one of the original members of the Executive of this Association and did all he could to help the Association in every way.

Resolved all standing.—“That this meeting wishes to place on record the deep loss it has suffered through the death of Mr. K. Krishna Iyer.”

The Minutes of the last Meeting were read and confirmed.

TYRES.—A discussion on these took place. Goodyear and Goodrich in the opinion of several members were bad. Mr. Sorab had a very good opinion of Wood Milne and Chinchel. The meeting were of the opinion that further information on this subject was required.

BADGES.—The Honorary Secretary was instructed to order eighteen.

SUBSCRIPTIONS.—Members who have not paid their subscriptions to date are requested to do so.

TOLL FEES.—The Honorary Secretary was instructed to write to the Revenue Secretary on this subject and to point out that the British Government only charged motors 8 as. while the Mysore Government charges 1/. Also that the proposal of the Kadur District Board does not meet the case of the general public.

PROVISION OF CART STANDS AND NUMBERING OF ALL CARTS—The Honorary Secretary was asked to bring this matter up before Government again, and to point out the urgent necessity for the provision of stands and the numbering of carts so that carts left on the road may be identified.

MOTOR GARAGES.—The Honorary Secretary was instructed to bring this matter before Government again with the view to Travellers' Bungalows being provided with lock up Garages.

REPRESENTATION ON DISTRICT BOARDS.—Proposed by Mr. S. Wajid and seconded by Mr. Woodbridge: "That this Association approach Government to grant it representation on the District Boards of Kadur and Hassan."—Carried unanimously.

ROADS.—Balehonur to Koppa. This is the best road in the Kadur District. Kadur to Chickmagalur. This road requires a great deal of attention and the Honorary Secretary is requested to ask the Executive Engineer to take the matter in hand.

GONEBEDE ROAD.—This road is impassable. The only effect of drawing attention to this road is its steady deterioration.

HASSAN BANGALORE ROAD.—67 mile. The urgent necessity for the provision of a bridge over the river that crosses the road in this mile.

Annamal Hanbalu Road mile 1—12—2. This road is in such a condition through soil being thrown on it instead of gravel that motors are liable to stick in the mud when wet.

Terikere and Narsarajampur. It is suggested that some metal may be kindly spared for this road.

The Executive Engineers of the Kadur and Hassan Districts are again requested to cover and roll their metal immediately after application.

The Executive Engineers of the Kadur and Hassan Districts are requested to remove the stone rollers off the roads. Where some have been lying from time immemorial they might, it is suggested, be broken up for metal as utilised in that way.

Complaints of stone throwing at passing cars have been received and steps are being taken to deal with the matter.

Proposed by Mr. Machiah and seconded by Mr. Nanasamie Rao.

"That the members of this Association be asked to financially support the Our Day Fête in Chickmagalur on the 12th of December, 1917. Those members able to attend are requested to lend their aid in any other way to make the day a success."

The meeting closed with a vote of thanks to the Chair.

(Signed) A. THOMSON,
Honorary Secretary.

The Honorary Secretary regrets the delay in circulating the above minutes but the original minutes were lost in the post.

A. THOMSON,
Honorary Secretary.

LABOUR DEPARTMENT.

It has been suggested that something about the work of the Labour Department should be published from time to time so that subscribers may know what is going on, instead of having to wait for the Director's Annual Report. To this end the following cases of interest are given. By many subscribers the question of New Connections of coolies is considered the most important object of the Department and so to-day a start is made with that.

"A" is a Coffee Estate in Mysore which wished to introduce Tamils. As far as we know there is only one Tamil connection in that Planting District and that is the case of a Maistry who has made it his home for 20 or 30 years. After trying in the ordinary way to get what was wanted, we tried through this man to get introductions to likely Maistries, but failed to obtain a single offer of any Tamil to go there.

"B" is a Coffee Estate which asked for more labour. We introduced a West Coast man, who after trial proved unsatisfactory, so we recovered the advance, we then sent a Tamil who was passed on to a neighbour, the shortage of labour having apparently disappeared.

"C" was a Coffee Estate that wanted more labour at once for crop, applied to us in September and wanted coolies for 6 months. We failed altogether to get coolies at that time of year.

"D" was a Tea Estate coming into bearing and wanting a much increased supply of labour. We introduced 4 Maistries, the last of whom was passed however to a neighbour, the Estate therefore seems temporarily filled up.

"E" is a Coffee Estate and wanted to supplement its labour supply. We sent a Maistry who was employed and we have heard no more.

"F" is a Tea Estate. Unfavourably situated from cooly's point of view and a difficult place to which to get any labour to go. After considerable trouble we sent a suitable man, he was returned as the Estate had no money to advance him.

"G" is a Tea Estate which asked for a small man to make a start, with a view to working up to bigger things in the future. We have not yet been able to fill the requirement.

"H" is a Rubber Estate and asked for a complete outfit of Tamil coolies to replace West Coast labour. We advised that there was no prospect of our being able to find such a connection and we introduced further West Coast Labour.

"I" is a Rubber Estate that wanted new blood and connections from areas it had not previously recruited in, we supplied 6 men.

"J" is a Tea Estate and asked for a completely new outfit of labour. We supplied two fairly big Tamil Maistries and three West Coast men and have not heard from them or the Estate again.

"K" is a Tea Estate and asked for more Tamils. We introduced a Maistry, with much trouble found another and sent him in May, but heard nothing, finding another in June we wired asking if he was wanted. No reply. In July we extracted an answer "Tamils not wanted."

"L" is a Tea cum Coffee Estate which wants to increase its Tamil connection, we have been unable to find anyone who will accept work there.

"M" is a Tea Estate wanting considerably more labour, we sent five Maistries, the fifth was sent on to a neighbour, so requirements are apparently satisfied.

"N" is a Tea Estate wanting more labour, we sent four Maistries and they seem to be for the time being satisfied.

"O" is a Rubber Estate which wished to increase its Tamil-Labour force, we introduced eight Maistries of whom they selected what they wanted and are satisfied.

"P" is a Tea cum Coffee Estate, disadvantageously situated from a cooly's point of view, it requires more labour, we sent a man with coolies without advance but have so far been unable to do more.

"Q" is a Coffee Estate which asked for coolies urgently for crop, we were unable to supply these. It then required a new connection, which we were able to find and which seems to have settled down.

"R" is a Tea Estate requiring permanent Tamil labour and Weeding Contractors. We sent a couple of the latter, neither of whom were employed, and have failed to get a permanent Tamil Force.

"S" is a Tea Estate, which asked for a considerable new connection, we sent seven new Maistries till the Estate wrote "Have enough Maistries."

"T" is a Rubber Estate wanting more labour, we sent three men, the last of whom was a swindle worked by an Agent, since dismissed, and the whole matter of his advance seems to have been a fraud.

"U," "V," "W," are all Tea Estates which required more labour to each of which we sent two Maistries and understand that they are at present full up.

"X" is a Tea Estate which asked for more labour, we sent three Maistries, none of whom seem to have been employed, but the last was passed on to a neighbour who had not asked us for help, so "X" seems to have what he wanted.

In 67% or a little over 2/3rds of the above cases the Department seems to have been able to assist in satisfying the requirements of the Estates. It must be remembered that in a couple of cases the requisitions were practically impossible to satisfy. Our old connections can in most cases, supplement the number of their coolies after Audi (August,) but I do not believe it possible to start an entirely new connection of Tamils, with any prospect of it being a permanent success, after the usual hot weather recruiting seasons.

At present it seems possible to get some of the labour required for Tea Estates in bearing and which are not more than usually badly situated from a cooly's point of view, but it has been difficult and is increasingly difficult to get Tamils to go to new Estates where there is as yet no plucking for the women. It must also be taken into account that some of the requisitions cited come from Estates still paying coolies the old rates of Rs. 7 per man, Rs. 5 per woman per mensem, these can only be filled by finding relatives or fellow villagers of the Maistries already working on or near the Estates asking for more labour.

Cases where Maistries have applied to us for work on a named Estate and this is the commonest form of application we get from them, who have been passed on to the Estates, or those instances where an Estate has made no application to us but labour has been passed on by a neighbour although sent by us, are not included in the above.

New Districts.—The great majority of Districts do not embrace anything that can be called a completely new District as regards Labour Recruitment for Estates, at most there are only a few corners which remain to be exploited, and in these some little success has been made so far. One connection was obtained from old country which has proved satisfactory but that was a case of persuading labour to come back to a Planting District they had left some time back. A special Agent was appointed to exploit a part of one district, from which we have not hitherto obtained coolies and a start was made with five Maistries who seemed at first to promise success, then a dead set was made against the Head Maistry by his fellow townsmen, he was prosecuted and sentenced to three months' imprisonment for assaulting a defaulting cooly, this on appeal was stigmatised as a "Monstrous sentence" and reduced to a fine, but I am afraid the man himself is completely ruined and at present it looks as if the whole experiment must end in failure, which is very unfortunate.

AYLMER Ff. MARTIN,
Director.

Bangalore,
21st November, 1917.

CORRESPONDENCE.

The Re-organisation of U. P. A. S. I.

Dear Sir,—I have so far seen no reply to Mr. Murphy's letter, so now venture to express my humble opinion of his suggestions, etc. I agree with the first paragraph of his letter on broad lines, but cannot see any object in moving the offices to Madras. With regards to subscription rate—I strongly object to the *one rate* idea. I have no use for the Labour Department as at present organised as it does not seem to me to be a sound business proposition to spend 2 lakhs to recover 30,000, and I am not prepared to subscribe towards a Mycologist who resides in Rubber Districts. Let those who require, and have use for, the above luxuries have the pleasure of paying for them. In my opinion all Scientific Officers should be Government Officials, and run by Government at Government expense, and for General Benefit of South India. Planters are not competent to control these men, as has been proved by more than one fiasco.

If an all round rate (largely to support luxuries) is forced on those who do not approve of "experts," I am afraid it will mean a large loss of acreage to the U. P. A.; which would be a pity.

I am not a subscriber to the Labour Department and will therefore not criticise it; but it appears to me that it does nothing, that the subscriber could not do for himself at considerably less cost.

By all means let all those who care to attend the Annual General Meeting of U. P. A. (and many already do so as visitors) but they should not be allowed to discuss or vote on any subject; it would make the meetings unwieldy and interminable, if they were allowed to do so. And as Associations are only allowed to vote on the basis of amount subscribed there is no object in splitting up the votes. Those who wish "to prompt" their delegates might be allowed to do so at the meeting *in writing*.

Why not start a Planters' Pension Fund? Charity *begins* at home.

THOS. HUNT.

RUBBER.

Influence of Rolling on Crepe Rubber.

The opinion is still largely held that prolonged crepeing must be prejudicial to the fresh coagulum. Eaton and Grantham had stated already in 1915 (*Agricultural Bulletin*, F. M. S., III., 218) that the influence of crepeing, if any, is only small, while after our experiments had been finished the results of Campbell (*Bulletin Agriculture Department, Ceylon*, No. 24) became known. After crepeing as often as 50 to 70 times in the washing machine no difference could be found in the vulcanised product.

We thought fit to repeat these investigations, first because the above-mentioned investigators did not study the influence of smooth rollers, in which the rubber is most pressed, and further because no determinations of viscosity were mentioned, although a change in the viscosity of the raw rubber would be the first thing to be expected.

The influence of crepeing can only be determined, if the resulting pieces of crepes are of the same thickness; difference in this respect may cause a difference in the rate of drying, and thereby a difference in the rate of cure.

This being allowed for, one would expect from prolonged crepeing a diminution of tensile strength and viscosity and a slower rate of cure.

Our experiments tend to show, in confirmation of the experiments of Eaton, Grantham and Campbell, that often there is no difference at all, even with much longer crepeing than is ever practised on estates. In some cases small differences were found, though of no practical importance, and only in one case, where the rubber became somewhat warm by prolonged treatment on smooth rolls, was a marked diminution in viscosity found.

Tearing and cutting of the fresh coagulum seems to have little influence on its inner qualities. Current opinion on this point is as absurd as the speculations on the "short or long fibre" of rubber.

In actual estate practice, of course, rolling as little as is consistent with a good outward appearance of the crepe means a gain in time, fuel, and wearing of machinery. This crepe under present market conditions has the advantage of rapid drying, though thick crepe with its rapid rate of cure might be preferred by certain manufacturers.

From our experiments the conclusion may be drawn that rolling a number of times more or less has no influence on the inner qualities of the rubber, provided enough water is used to keep the rubber and rolls cool. In trying to prepare crepe of uniform appearance and thickness, it does not matter if this is reached by passing the rubber a few times more or less through the rolls.—*The India-Rubber Journal*. (Communications of the Central Rubber Station at Buitenzorg. *Archief voor de Rubber-Cultuur*, No. 1, Vol. I.)

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting." Bangalore.)

VOL. XII. No. 48.]

DECEMBER 1, 1917.

[PRICE AS. 8.]

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Deputy Director of Agriculture, Planting Districts, has accompanied Dr. Butler, Imperial Mycologist and Mr. McRae, Government Mycologist on a short visit to a Rubber Estate and will return on Tuesday next.

The Scientific Department publishes an article on the effect of Thinning out on the yield of Rubber and Coffee Borer in Indo-China.

We publish the Proceedings of the Special General Meeting of the Shevaroy Planters' Association which was attended by Messrs. Anstead and McRae whose remarks we hope to publish when those gentlemen have the time to send them in.

At a time when the suggestion of the Re-organisation of the U. P. A. is under discussion we publish a Speech made by Mr. Lake at the Annual Meeting on the Labour Department.

The date of opening the Madras Exhibition has been changed to the 21st December. Intending exhibitors should therefore send their exhibits as soon as possible, and their attention is urgently called to the Circular just received and published from the Director of Agriculture.

Just as we were going to press a cable to the Secretary of State from seven curing firms was sent to us. Planters will greatly appreciate their support.

In continuation of last week's article, the Director, Labour Department, supplies another.

Though unable to publish the full judgment, notice is drawn to the case on which all the issues were decided in favour of the U. P. A. with costs.

At the request of the Military Secretary to H. E. the Governor of Madras we publish an Appeal from him on behalf of the Madras War Fund.

In view of the note from the *Madras Mail*, it is hoped, that when the Tea Commissioner asks for information and statistics, such will be furnished with as little delay as possible.

It is with regret we publish the letter from the Acting Secretary to the Government of Madras to the Secretary, U. P. A. S. I.

Members having grievances or suffering hardships should attentively read the letter from the D. A. A. G. for I. D. F. 9th Division,

SCIENTIFIC DEPARTMENT, U. P. A. S. I.**Effect of Thinning out on the Yield of Rubber.**

The following is the summary of a Bulletin published on this subject in Java in Dutch. (*Mededeelingen van het Proefstation Malang No. 19.*)

Figures are given as to the effect of thinning out Hevea fields on the rubber yield per acre.

In the first case in three fields planted 12' by 24' one alternate row was taken away in the course of one month bringing the distance in this way to 24' by 24'.

Though half the trees were removed the yield of these fields did not show any decrease. The average production per field and per tapping day during the three months preceeding thinning out had been 4'28 lbs. and that during the three months following thinning out 4'12 lbs. whilst the figures for the three control fields for the same periods were 3'33 lbs. and 3'17 lbs. The decrease in yield is the same in both cases and is not due to thinning out.

In the second case one field 12' by 12' was thinned out to a distance of 24' by 24'. The trees which had to be taken out were pollarded and the stems tapped for one month. During this time the permanent trees were rested. After one month all the pollarded trees were uprooted and tapping was resumed on the permanent trees.

The average yield during the two months before thinning out was 2'95 and that during the two months following thinning out 2'71 lbs. per tapping day. The same figures for the control field were 2'89 and 2'61 lbs. In this case also no decrease in yield due to thinning out took place, notwithstanding the fact that $\frac{3}{4}$ of the trees had been taken away.

Coffee Borer in Indo-China.

The Coffee planters in Indo-China are as much troubled with Borer as we are judging from what is said of this pest in a letter in the *Bulletin de la Chambre D'Agriculture du Tonkin* 114 of which the following is a very literal translation.

"In North Annam Borer seems to be the only serious enemy of Coffee. We follow on the heels of its ravages, we cut it out and cut it out again, we dig up the trees, we burn the infected trees, our gangs never stop."

"In the three premier coffee plantations of North Annam the oldest coffee is not much more than eight years old so that we have not yet arrived at a stage where we can give figures or make definite assertions but we believe that 12 to 13% of the trees if not more are attacked each year by Borer."

"We notice on our estates and on those of our neighbours at a certain elevation that if the borer grubs remain long enough in the branches to allow of the cutting down of the tree and getting up a vigorous sucker to replace the bush quickly then the borer attacks the root. We are thus obliged to dig out the greater part of the infected bushes for in the cut stumps we find large numbers of borer grubs. The result is great gaps in the plantation, but what else can be done?"

"This is why it is necessary to have in the nurseries very good plants with which to replace the bushes and these supplies should be given a dose of concentrated manure to enable them to make a vigorous growth."

"In the beginning of July we dug out a large number of bushes and we wondered if it was the dry season which induced the borers to go down to the roots. It is in the third year from planting that the insect begins its ravages."

RUDOLPH D. ANSTEAD,
Dy. Director of Agriculture, Planting Districts.

DISTRICT PLANTERS' ASSOCIATIONS.**Shevaroy Planters' Association.**

Proceedings of the Special General Meeting held at the Victoria Rooms, Yercaud, on 23rd November, 1917.

PRESENT.—Messrs. R. D. Anstead (Deputy Director of Agriculture), Revd. Father Capelle, Messrs. S. Campbell, F. Carey, E. Travers-Drapes, V. Travers-Drapes, H. S. Dyer, A. J. D'Silva, H. S. Dickins, R. A. Gilby, R. W. B. Gompertz, S. M. Hight, C. L. Hight, N. Hight, A. B. Kundaswamy, W. I. Lechler, J. C. Large, McKrae (the Government Mycologist) C. Rahm, W. Rahm, L. E. T. Short, H. Whittle and Charles Dickins (Honorary Secretary) also Mrs. E. Travers-Drapes, Mrs. Charles Dickins, and Mrs. Robinson.

The Honorary Secretary on opening the meeting said he felt sure he echoed the sentiments of the Association by stating that all were very pleased to have Messrs. Anstead and McKrae with them to-day. He stated the object of their visit to those Hills was chiefly to look into the matter of Fruit diseases, and the conditions prevailing in the District with regard to fruit culture, as well as to see Fungoid Diseases of Coffee. He stated he felt sorry he was unable to arrange a more extensive tour for Messrs. Anstead and McKrae and to give members longer notice convening the meeting, as unfortunately the first letter Mr. Anstead sent to his address relating to the intended visit, never reached its destination, or otherwise better arrangements might have been made at the last meeting and no doubt there would have been a better attendance to-day if earlier notice had been served.

Continuing the Honorary Secretary stated that all present would be glad to hear anything those gentlemen had to tell them on the aforesaid subjects as most people here knew very little about them and that the members of the Association were always willing and anxious to learn. Also that within the last few years many of the planters here have been turning their attention to fruit culture—some to a considerable extent with the ultimate object of making it a paying industry and others again to a few trees round their bungalows, nevertheless all would be glad to hear what the Deputy Director of Agriculture had to say on the subject, which might induce others to go in for more extensive cultivation.

In conclusion he said it gave him very great pleasure to introduce Mr. McKrae (the Government Mycologist) to the meeting and that during the term of his office, now extending to some 10 years, this was the first time he had the pleasant duty of welcoming the Government Mycologist at one of the Shevaroy Planters' Association Meetings and also that he thought the thanks of the Association were largely due to Mr. Anstead for bringing this officer to our District and that if he saw fit to visit us again to do so, as in the Honorary Secretary's opinion very much more could be learnt by personal interviews than by correspondence, and ended by stating it gave him great pleasure to call upon these gentlemen for their addresses, in the order suitable to them, and he was sure the meeting would learn something useful and beneficial to help them to "carry on."

It was proposed by Mr. J. C. Large, seconded by S. M. Hight, and carried with acclamation: "That a very hearty vote of thanks be accorded to Messrs. Anstead and McKrae for their very interesting and instructive lectures and for their kindness in answering the numerous questions with reference to Fruit culture, potato cultivation and fungoid diseases of coffee and a hope expressed that they would again visit this District whenever it suited them to do so."

With a vote of thanks to the Chair the Meeting terminated.

(Signed) CHAS. DICKINS, *Hon. Secretary.*

RE-ORGANISATION OF THE LABOUR DEPARTMENT U. P. A. S. I.

The Scheme for the suggested re-organisation of the United Planters' Association is being circulated by the Secretary to Honorary Secretaries of District Association to place before their members, it has been thought advisable to reproduce the speech of Mr. C. Lake who moved the resolution at the last Annual Meeting that some scheme for the re-organisation of the Labour Department should be undertaken. This had the same effect as a stone thrown into a pond, the ever widening effects of which have been to embrace the whole question of the re-organisation of the U. P. A. Much time, thought and labour has been given by the Hon'ble Mr. Barber, who has drawn up the scheme, so it is to be hoped that an equal amount of time, thought and labour will be given to its consideration.—(ED.)

Mr. Lake's Speech.

Mr. C. Lake (South Mysore) said: Mr. Chairman and Gentlemen,—In the ordinary course of events there will be only one more Meeting of the U. P. A. S. I. before the term of guaranteed subscription to the Labour Department comes to an end and I think it is now desirable to place before those in control of it for their consideration any suggestions and improvements which may seem necessary if the Department is going to be carried on after the expiry of the present term of five years. Before I proceed further I would like to emphasise that what I have to say on this subject is not intended in any way as a carping criticism on the way the Department is being run, as I very fully appreciate the tremendous amount of work and trouble, the organising and carrying on of it, has given to Mr. Martin and to those assisting him. My suggestions are an attempt to keep the ship of the Department from drifting on to the rocks, which I fear will be the case if present conditions are not altered, and to justify its continuance on more efficient and economical lines. I cannot of course speak for other districts, but as far as South Mysore is concerned the opinion is very generally held that the present subscription of Rs. 2 per acre is too heavy a burden and it seems likely that there will not be found many agreeable to continue the present subscription after the fifth year. If the Labour Department is to continue, therefore, the main point to be considered is a reduction of the subscription which must be brought about either by getting in a larger acreage or by asking the assistance of Government or by some other means. It seems to me that the line on which the Department is now being run is altogether too cumbersome and top-heavy and that much greater efficiency in the work done by it could be obtained if more money was spent in the recruiting areas and less at the headquarters than is the case at present. During the past year although a sum of Rs. 2,10,121 was spent which is some Rs. 6,000 in excess of the revenue for the year and Mr. Martin has told us that owing to the War, financial conditions made it necessary to abandon any expansion in the establishment of Indian Agencies. If this has been found necessary with an expenditure in excess of the revenue it is difficult to see how any improvement can be expected in the future on the present lines of working. It is, at any rate, very much to be deplored as it is in this direction that the Department should be of greatest use to us. The method which suggests itself to me by which the subscription could be reduced and better value for it obtained by the subscribers is that the Head Office as now constituted in Bangalore be done away with and that each circle or recruiting centre be made self-containing and fully responsible for all the work done within its area and rendering its accounts direct to the

U. P. A. S. I. Further, that after allowing say 15 per cent for increase of expenditure at the U. P. A. S. I. office, the centre balance of the subscription of each planting district be used in developing the Department in the area from which it recruits its labour. So far as Coorg and Mysore are concerned this would I think enable the subscription to be reduced to Re. 1 or even less per acre and it will probably be found that the same is the case with other districts. Whether something on these lines could be effected without loss of the friendly co-operation which now exists throughout the Department I cannot say but although the interests of several districts may be found to overlap a little I do not think the difficulty will be found too insurmountable if left in the able hands of our Director. The most important thing is to bring into existence some method of carrying on the Department on cheaper and more efficient lines than is the case at present and if this is not done the whole thing seems likely to fizzle out for want of further support. To my mind, gentlemen, it is unthinkable that we should ever again allow things to revert to the chaotic state of affairs which existed before it was started. I beg therefore to propose the following Resolution:—

“ That the Director, Deputy Director and Control Committee with power to add to their number be asked to prepare a scheme for re-organisation of the Labour Department on a basis of subscription of approximately Re. 1 per acre.”

MADRAS EXHIBITION.

It has been announced in the Press that the Madras Exhibition will be opened on the 21st December by His Excellency the Viceroy.

Preparations must therefore be accelerated so that everything may be ready by that date.

Office of the Director of Agriculture,
Madras, 28th November, 1917.

R. O. C. 5025—G1.

CIRCULAR.

Owing to present delay in goods traffic all articles intended for the Madras Exhibition must be despatched by Passenger Train. Nothing should be sent by goods train.

2. Printed concession certificates are being sent separately. They are self-explanatory and will entitle the Exhibits to be carried back *free*.

(Signed)

For Director of Agriculture.

CABLE TO THE SECRETARY OF STATE FOR INDIA.

The following cable has been sent by the Curers of Mangalore:—

Secretary of State for India, London. Undersigned seven Coffee Agency firms earnestly pray that planters petitions for six thousand tons space for France and London before May next be granted or alternatively that Government purchase stocks stop Industry seriously menaced. Morgan, Peirce Volkari, two Saldanhas, Nowrojee, Venkatrao.

LABOUR DEPARTMENT.

The Annamallai Planters' Association has a rule that no Estate should take on a New Maistry without first referring the matter to the Labour Department. If all other subscribers of the Department would observe the same rule, subsequent trouble and loss of money would not result. All Officers of the Department are able to give information, and if not immediately available, it can be obtained.

The Coimbatore office of the Department is best organized in this respect, and subscribers have a safeguard that their Maistries will not be advanced by another subscriber. Already the practice has a good effect in driving from our midst swindlers who are out to get advance with no intention of fulfilling any contract. The amount of money saved cannot be estimated in figures, but it must be considerable. Cases can be numbered by scores, and a few such are as follows:—

1. A man came to the Labour Department office with a letter from the Estate saying it had been arranged to advance him Rs. 500 down, and Rs. 500 in three months. He was a defaulter of five other subscribers.

2. A man who brought a cheque for Rs. 500 to be paid him "If you find, as I expect, his references are satisfactory," was a defaulter of a subscriber for Rs. 1,300.

3. Three men who arrived with a cheque for Rs. 500 to be paid them as partners. Two were defaulters from the Estate of a non-subscriber in Wynaad.

4. A man sent us by an Estate who proposed to advance him Rs. 350 was known to be a most unsatisfactory character and already under advance to a subscriber.

5. Three Estates wired or wrote us during the course of a month proposing to advance a man, who was known to be a defaulter owing Rs. 500 to a non-subscribing Estate in Travancore.

6. We received a Money Order for Rs. 200 to advance a man, who we knew from our records was a defaulter for Rs. 334 to a subscriber.

7. An Estate wired us to know whether they should advance a man, who was registered as under advance to a non-subscriber in Wynaad.

I record with much sorrow that a few subscribers prefer to run the risk of advancing on the chance of getting coolies, without referring to the Labour Department, which very often leads to trouble not only between the Estates concerned, but the Labour Department has to act as a buffer and gets blows from both sides. In one case the Superintendent of the Department, when he first heard of a certain transaction wrote that the advance would be lost, and has since been suspected of not being likely to help in rounding up the defaulter, so that his prophesy may come true, which is an unwarranted aspersion, and unfortunate as it tends to make us chary of expressing an opinion.

The investigation by our Agents of the status and character of men applying for advance, is a really valuable service performed by the Department, and not sufficiently appreciated.

ABSCONDERS AND DEFAULTERS.—Several subscribers have written that the hunting up of absentees and making them go up to the Estates has been of benefit, but it is impossible of course to say how many of these would have gone up eventually had there been no Department. It is a matter which every subscriber must judge for himself. But I feel sure very many defaulters are "Hurried up," going earlier than they would have done if they had not been worried, and very many pay back their dues who would not have done so without the help of the Agents, although the fact that money recovered by the Agent is returned to the Estate, and not to the Maistries themselves, is a cause of the Department being unpopular with them. It is one of our problems how to deal with this matter. It is certain that if Cash recoveries were handed to the Maistries, it would not be used for the benefit of the Estate. Sometimes the money recovered from coolies who owe money to a Maistry being sent to the Estate is the only way of reducing the man's debt. If he got the money and emigrated we would be up a tree. We have also to guard against collusion between Agents and Maistries, a very important and difficult matter. I have known cases of Maistries who try to justify themselves on the Estate by putting in long lists of people who owe them money, when in reality they and the Agent have already dealt with those people. When they fall out over ill-gotten spoil, the Maistry makes a complaint against the Agent with perfect safety to himself, for if true the Agent is dismissed, and if false the Maistry cannot be punished. What is the use of fining a man already in debt to the Estate? and all chance of recovering that debt vanishes if he is tom-tomed off the place, as he should be. Agents frequently complain that Maistries will not accompany them to identify defaulters. A great number of cases on our pending list is due to this. Maistries retort that Agents fix a date, and then do not keep the appointment. What we know for certain is that when a letter is given to a Maistry to deliver to an Agent, as often as not he does not deliver it at all, or he sends it by post to save himself trouble. When Maistries are tackled on this point, they say it would be no use to go with the letter as the Agent would ask a bribe. The fact remains that when a letter has been delivered promptly, the Agents as a rule have been able to give us satisfaction. Delay in delivery usually means that the Maistry has been round his defaulters himself, and squeezed what he can out of them, showing the letter, and threatening to put the Agent on to them. Maistries are always willing to accept a smaller amount which they can put into their own pocket, rather than see a larger amount sent to the Estate for the credit of their account. Sometimes Maistries go round with Agents, and cash down being seldom available, the panchayat appoints a date for payment in whole or in part. The Agent proceeds on the appointed day only to find himself confronted with a receipt in full signed by the Maistry who has accepted less than was originally agreed upon. The Agent tells us the Department has been defrauded, he has been robbed of the kudos we would give him for better results in recoveries, and loudly calls for justice. As I have pointed out before, we are unable to punish the Maistry and the Agent is left with a grievance. We know that subsequent relations between that Maistry and that Agent are strained, and the Estate concerned suffers in consequence.

In spite of these and other difficulties the Department shows continued progress in Cash recoveries, the amount actually remitted to Estates for the 1st four months of the current financial year being Rs. 16,986-15-0 which is better than ever before for the same period. This may be coincidence, but I hope it is the result of increased efficiency. How much more has been recovered behind our backs is not definitely known, but is probably as much again, and possibly twice as much.

I see from Mr. Thomas Hunt's letter in the issue of the *Chronicle* for the 24th instant that he looks upon the Labour Department simply as a debt collecting Agency, he says "It is not a sound business proposition to spend 2 lakhs to recover Rs. 30,000." The argument is absurd because it ignores the other objects of the Department. Would a debt collecting Agency take any trouble over small debts, or over those not easily recoverable? Of course not, it would not pay. We do not shirk the work of worrying a debtor no matter how small the debt, or how difficult it may be to recover. In many cases we know that we are seeking to get blood out of stone before we ever start on the enterprize. The reason is that it pays South Indian planters as a whole to prevent a man who is a scoundrel from living in peace. It shows others that the game is more difficult now than it used to be. Mr. Hunt is typical of the man who benefits by our action without contributing a cent. When professional swindlers at last realize they cannot swindle subscribers to the Department with impunity, it will be only natural if they transfer their attentions to more likely victims. As yet they do not quite know who subscribes to the Labour Department and who does not, but they will tumble to it some day.

Next week I will give some instances of the perseverance with which defaulters are tracked, a style of work which no mere debt collecting Agency could possibly undertake.

AYLMER F. MARTIN,

Director.

Bangalore,

26th November, 1917.

U. P. A. S. I. vs. FATHER CAPELLE.

The U. P. A. S. I. (Labour Department) sued the Revd. Father Capelle, (Pondicherry Jesuit Mission) for arrears of subscription. The case was heard at Yercaud (Shevaroy) on the 8th and 9th October and at Salem on the 20th October, 1917. Our case was that the guarantee signed by Father Capelle were binding, and that he was not entitled to withdraw his subscription. The defendant's case was that the guarantee was not binding, that as he had no use for the Labour Department, and as it had failed to give him satisfaction, he was at liberty to discontinue his subscription at any time having given due notice of his intention. The Principal District Munsiff of Salem, who tried the case pronounced an exhaustive judgment on the 29th October, and having recited everything materially connected with the Labour Department from the year 1913 and considered the evidence on both sides in all its aspects, gave a decree in favour of the Department on all the issues with costs.

It may be pointed out that it was with the greatest reluctance and after great forbearance that the U. P. A. instituted this case: not so much for the recovery of the subscription in arrears, as to assert the legality of the guarantees given gratuitously by subscribers to the Department, without whose adhesion the Department could not have been started. Without any animosity or ill will this suit was instituted to prove that a contract cannot be rescinded at the will of one of the contracting parties. This is the lesson that is to be learnt from the case. It was with much regret the U. P. A. saw the necessity to take proceedings. We hope to publish extracts from the lengthy judgment, which fully justifies the action taken by the U. P. A.

An Appeal
 BY HIS EXCELLENCY THE GOVERNOR
 ON BEHALF OF
MADRAS WAR FUND.

We have the pleasure to publish the following Appeal that has been sent to us:—

The certainty that our troops at the Front will have to face another winter campaign and a continuance of all the hardships incidental to Active service has rendered it necessary for those to whom the administration of the Madras War Fund has been entrusted to consider seriously how to make provision for the further maintenance of the Hospital Ship 'Madras,' the River Hospital Ship 'Sikkim,' the Madras Gardeners' Corps now working in Mesopotamia, and the other beneficent agencies of the Fund, which it has already supported for a period far exceeding the original calculations. It is evident that this can only be secured by special efforts on behalf of the Fund which, as can be seen from the recently published report of the Transactions up to 31st March 1917, has been maintained partly by donations and partly by monthly subscriptions. The monthly subscriptions to the Fund have never equalled its normal monthly expenditure, of which they now fall short by half a lakh, this deficiency being met out of the capital resources, which—built up by donations—must thus in time become exhausted. Looking to the present conditions of the tremendous conflict which calls for our utmost efforts, it is now imperatively necessary to replenish the capital resources of the Fund and so to maintain, as hitherto has been done, its normal expenditure.

As compared with other provinces the Madras Presidency and some other portions of Southern India have until now been relatively free from the burden and drain of Military recruitment. The repeated endorsement by the highest authorities of the work of the Madras War Fund, and of the Hospital Ship 'Madras' in particular has added to the pride of the Presidency in these symbols of its loyalty and gratitude. Moreover the contributors who have throughout supported the Fund as a practical and beneficent instrument of their generosity, and incidentally a visible token of their grateful recognition of their immunity from other burdens borne elsewhere in large measure by others, would view any reduction or restriction of its work with feelings of deepest regret and mortification.

This appeal for further donations is now issued, in the confident belief that it is only necessary to publish the urgent need of further assistance to elicit an immediate response and place beyond doubt the continuity of this good work for a further substantial period of time; and in the hope that it will specially commend itself individually and collectively to all those to whose liberal support the great and continuing success of the Fund hitherto has been due.

PENTLAND,
*Governor of Madras and
 President of the Madras War Fund.*

GOVERNMENT HOUSE, MADRAS, }
 November 1917.

Donations should be sent to—

THE MILITARY SECRETARY,
 GOVERNMENT HOUSE, MADRAS,

The following is the first list of donations received to the above appeal:—

	Rs.
His Excellency the Governor	1,500
His Highness the Maharaja of Travancore, G. C. S. I., G. C. I. E.	1,00,000
The Raja of Venkatagiri	50,000
The Raja of Pithapuram	50,000
His Highness the Raja of Cochin and increase of monthly subscription from Rs. 750 to Rs. 1,000 ...	20,000
Zamindar of Parlakimedi	10,000
The Rani Sahiba of Wadhwan	10,000
The Raja of Sandur	6,000
Messrs. Wrenn, Bennett & Co., Ltd.	3,000
Messrs. Gordon, Woodroffe & Co.	2,500
Messrs. Wilson & Co.	2,500
Messrs. Parry & Co.	2,500
Messrs. Best & Co., Ltd.	2,500
Messrs. W. A. Beardsell & Co., Ltd.	2,500
The Zamindari of Kolanka and Viravaram estates ...	2,000
The Maharaja of Bobbili, G.C.I.E.	1,000
Messrs. P. Orr & Sons, Ltd.	1,000
Messrs. Spencer & Co., Ltd.	1,000
Messrs. Oakes & Co., Ltd.	1,000
Messrs. McDowell & Co., Ltd.	1,000
Messrs. Fraser & Ross	1,000
Mr. F. D. Bennett	1,000
Mr. Wales	500
Mr. Everett	500
The Zamindar of Bhadrachalam and Polavancha ...	500
Messrs. Simpson & Co.	250
Sir P. S. Sivaswami Ayyar, K.C.S.I., C.I.E.	200

THE INDIAN TEA TRADE.

FOOD CONTROLLER'S SCHEME.

With reference to the arrangements being made by the Food Controller for the purchase of tea in India for the United Kingdom and the army and navy, it is understood that while the basis of the negotiations between the Controller and the growers have now been settled, there still remains for settlement the amount to be added to the pre-war average prices on account of the increased cost of production, owing to the war. Negotiations are not yet complete, but there appears to be good hope that an arrangement, which will give mutual satisfaction, will shortly be arrived at, by which while growers may have to forego profits on the scale which has ruled hitherto they will still be able to retain a satisfactory margin. At the same time, the situation at Home which for some time has given rise to considerable anxiety will be much alleviated and fears of a tea famine will disappear.—
The Madras Mail.

CORRESPONDENCE.**Government of Madras.**

(REVENUE DEPARTMENT.)

No. 127-G/17.

From

The Hon'ble Mr. A. R. Knapp, I.C.S.,
Acting Secretary to the Government of Madras.

To

The Secretary to the United Planters' Association
of Southern India.

Dated Fort St. George, the 26th November, 1917.

Sir,—I am directed to inform you that the Government of India have intimated to this Government that the Shipping Controller is unable to give even secondary preference to coffee after the claims of priority cargo have been satisfied. The Shipping Controller states that priority cargo is so heavily in arrears, and the demands of Government Department are so urgent that the grant of secondary preference to coffee would in no way further its import into the United Kingdom.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) A. R. KNAPP,

Acting Secretary to Government.

No. 11159/1/CS.

Headquarters, 9th Division,
Bangalore, 26th November, 1917.

To

THE SECRETARY,

United Planters' Association of Southern India,
Bangalore.

Sir,—With reference to the question of grievances of planters under the Indian Defence Force Act, I am directed to inform you that the Divisional Commander has recently had an interview with the Chief Secretary to the Government of Madras when various specific cases of hardship or grievances were discussed.

Of the reports forwarded through the United Planters' Association of Southern India to Government the majority dealt with hardships which would be incurred if the Yercaud Rifles should be mobilised for guard duties. There was some question of guarding the Armoury at Yercaud but the difficulties were fully realised and accordingly other arrangements have been made. All these alleged grievances therefore cease to exist.

Of the others the most serious complaint was from Mr. Pinches on which the General Officer Commanding, Southern Brigade was asked to make special enquiries and to report. A copy of his report was sent by him to the Hon'ble Mr. Barber. I am directed to state in this as in all other cases where hardship is caused by men being called out, the remedy is in the hands of the individual or his employer. It must be realised that in the present emergency when all British subjects are called upon for military service some hardship cannot be avoided. In the Selection Committees however Government have provided machinery to mitigate hardships

to individuals, the composition of these committees being one representative of Government, one representing the General Officer Commanding, at least one of the community affected, and two other non-official members.

The preliminary selection to groups is made by the unit concerned, and published in Regimental orders and in many cases in the Press as well, so that every man selected is aware of the fact, and can put his case before his Commanding Officer if desired. The final selection rests with the Committee before which any person called on his Regimental orders may appear and represent his case. The Military representative (who is in any case in a minority) has standing instructions in no case to oppose any applications for release where undoubted hardship is caused which can be remedied by selection of another man whose calling up involves a less degree of hardship.

If members of the Indian Defence Force do not avail themselves of the remedy they have, it will be seen that the General Officer Commanding cannot entertain complaints made afterwards, whilst as a matter of fact selections being made by a Committee appointed principally by the Local Government he has no powers under the Act to override its decisions.

Some vague complaints were made by Mr. Pinches of "disgraceful" treatment received by some of his men in Madras. Complaints of this nature obviously cannot be investigated but enquiry has been made from the Officer Commanding, General Service Battalion, who informs me that no complaints at all were received by him so that these cannot have been anything serious.

In this connection I am directed to point out the proper channel of complaint by a member of the Indian Defence Force who considers he has any grievance is through his Company Officer to the Officer Commanding Unit who will either deal with it himself or refer it to superior authority. Representations received through the proper channel will always receive adequate consideration, but the Divisional Commander would like all members of the Indian Defence Force to understand that complaints submitted in any other way cannot be attended to and are a breach of discipline. General questions affecting the planting community as a whole your Association will always be consulted and expressions of members' opinions welcomed, but as mentioned personally by the Divisional Commander during your interview with him, he cannot express any opinion on individual cases unless he has before him the opinions and reasons of all commanders subordinate to him, for the action taken by them.

One point brought out in the letters received by you, and mentioned personally was the question of planters families in isolated districts. The General Officer Commanding Bangalore Brigade is being asked to go into the question but this appears a case in which the United Planters' Association of Southern India should submit some definite proposals showing the number of men and dependants affected with suggested remedies. If this could be done in communication with the Bangalore Brigade this question will receive careful attention from the Divisional Commander.

Other questions relating to training camps are being gone into through the General Officers Commanding Brigades and it is hoped the difficulties complained of may be overcome.

I have the honour to be,

Sir,

Your obedient Servant,

(Signed) F. H. BOWDEN, *Captain*,

D. A. A. G. for I. D. F., 9th Division,

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 49]

DECEMBER 8, 1917:

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Planting Member who is in Madras will be glad to receive suggestions from any one who has any to offer about Tea or Coffee difficulties by wire at the Club, Madras, or c/o Madras Revenue.

The Deputy Director of Agriculture, Planting Districts, leaves for Poona to-night to attend the meeting of the Board of Agriculture and will be away a week.

Mr. Clementson, Superintendent of the Labour Department, Srivilliputtur, will be on three weeks leave from the 11th December.

The Secretary will be in Madras attending to arrangements of the U. P. A. Exhibits from 10th to 13th and again from 17th to 20th instant will be very glad of any assistance.

We publish the third quarterly general meeting of the Central Travancore Planters' Association. It is lengthy but of general interest.

The Director, Labour Department, supplies us with another article.

Our correspondence columns are very full in this issue, as they include letters and telegrams dealing with coffee up to date.

The Food Controllers Tea Purchase Scheme which is held up for the moment ends with the appointment of an advisory committee for Southern India which will be universally approved.

A letter from the Hon'ble Mr. Barber in reply to Mr. Hunt and one from Mr. Leslie-Rogers regarding Circulars are published.

The Manager, the Central Travancore Rubber Co., Ltd., writes us that he hears with regret, which will be shared by all of us, of the death of Captain R. J. Scarbrough from wounds in Palestine. He was an assistant in his company for about two years and went home in 1915 and got his commission. His loss is deeply felt on the estate and in the District.

SOUTH INDIA PLANTERS' WAR FUND.

		Rs.	A.	P.
Amount previously acknowledged	...	67,363	8	2
Mr. A. J. Wright, Munnar	...	20	0	0
Mr. Campbell Hunt, Kerala	...	30	0	0
Messrs. Barber and Pascoe	...	75	0	0
Mr. C. H. Browne, Sallabelle	...	280	0	0
Total	...	67,768	8	2

DISTRICT PLANTERS' ASSOCIATIONS.**Central Travancore Planters' Association.**

The Third Quarterly General Meeting of the above Association was held at the Medical Fund Bungalow, Peermade, at 10 a.m., on 14th November, 1917.

PRESENT.—Messrs. J. S. Wilkie (Chairman), J. A. Richardson, D. McArthur, C. A. Mackenzie, A. H. Gerrard, A. A. Brodie, R. Tait, W. A. J. Milner and W. F. Stephen (Honorary Secretary).

The Notice calling the meeting was read.

Before proceeding with the business of the meeting the Chairman referred to the sad death of Mr. Westaway's son and proposed that a letter of condolence be sent to Mr. Westaway conveying the sympathy of the Association.—The vote was passed in silence all members standing.

The minutes of the previous meeting were read and confirmed.

MRS. BESANT.—Resolution by the Chairman.

Gentlemen,—I am afraid that owing to the difficulty in arranging a date suitable to all members, we are somewhat late in taking up this subject. I wish to move the following resolution: "That this Association views with grave concern the action of the Secretary of State in bringing about the release of the Madras internees as being a grave political error and thereby encouraging Mrs. Besant and her followers in a mischievous propaganda which does not represent the views of the people of India but only a small minority of fanatical extremists. In protesting against the release of Mrs. Besant and her Home Rule Propaganda we are only voicing the views of a vast population interested in the land with whom we are closely connected irrespective of caste, creed or nationality. We further deprecate the subserviency shown to such ill-timed agitation as that now being carried on in India, whereby the vast British interests invested in this country are likely to be put in jeopardy."

In seconding the resolution, Mr. Richardson said: Gentlemen,—In seconding the resolution now before the meeting the Chairman has explained that it is rather belated owing to the absence last month of so many members from the District. Politics as a rule are not subjects of discussion at our meetings but times are changing and it is imperative that we should take steps to protect our interests which are identical with the other subjects of the Indian Empire both Europeans and Indians alike. We are protesting against the action of the Secretary of State which has dealt a blow against law and authority in India which it may take years to right. It has also encouraged Mrs. Besant and her fanatical followers to go to extremes they would never have dared to rise to before. I do not intend to take up your time with a political speech but we as planters have already had some experience of how the home authorities are capable of muddling our affairs over the export of tea and coffee which we can only put down to want of knowledge of conditions out here. If we are to be at the mercy of politicians at Home who seem absolutely ignorant of this country and its requirements it is high time we took steps to have our views represented at home to prevent recurrence of such deplorable mistakes occurring in future as has just been made over the release of Mrs. Besant and her followers. We have such an organisation ready to hand in the European Association which already has a scheme for representing our views in London. I believe most of us are members of this Association but if any have not yet joined I trust they will do so before they leave this meeting. The Honorary Secretary will gladly forward their names. As planters we are in rather a different position to the Mercantile community as we are "of the land." Our capital is invested in the land and the produce it bears and it is an

investment for our heirs and successors for time to come. It is not a business carrying a good-will and stock-in-trade which can be got rid of on valuation but our interests are identified with the ryot and other Indian landed proprietors and as such we should have a say in any political changes in the country and a right to oppose the extremists views of Mrs. Besant and her home rule party which under present conditions would be a fatal policy for the Indian Empire. That political changes must come we all admit but they must represent the views of India's millions not those of a few fanatical politicians who are simply working for their own ends and notoriety.

BANGALORE, CALICUT AND OOTACAMUND DELEGATES REPORT:—

Mr. Chairman and Gentlemen,—At the request of the Association Mr. McArthur and myself represented you at the U. P. A. S. I. meeting at Bangalore and we now beg to present our report.

The meeting was a very full and representative one, every district sending one or more delegates.

We do not wish to take up your time with a long detailed report especially as I understand the Book of Proceedings will shortly be out when you can read for yourselves all that took place.

We will therefore only touch on one or two of the main items which interest us most.

Financial help from Government for the Planting Industry was perhaps the most important item of discussion and took up some considerable time.

To explain the position it is necessary to go back to the Madras meeting in May at which the following resolutions were passed and sent up to Government:—

1. The Council Bill allotment might be raised above Rs. 120 lakhs per week: or
2. A certain amount of Council Bills might be earmarked for Estate requirements: or
3. Government might make advances to Exchange Banks for the purpose of purchasing Estate Bills:
4. Rupee one and two notes might be issued at once.

Numbers 1 and 2 we were told at the time could not be considered as Council Bills were more likely to be cut down than increased which was eventually the case and was borne out in correspondence between the Hon'ble Mr. Knapp and the Hon'ble Mr. Barber, our Planting Member.

At the same time the Government of Madras suggested holding a conference of Planters and Bankers to go into the whole subject and for this purpose asked for certain figures of expenditure which some Estates refused to supply.

Mr. Ainsworth of Messrs. Harrisons & Crosfield proposed re-affirming the Madras resolution No. 3 in the following resolution:—

“That this meeting urges Government to adopt the third resolution passed at the Madras Finance Meeting, reading: ‘That Government should make advances to Exchange Banks for the purpose of purchasing Estate bills’: and further requests Government to arrange for financial assistance, in the shape of direct assistance for such Estates as do not desire to receive that assistance through the Banks.”

At the time this resolution was proposed, as we said before, several Estates had refused to give details of their financial requirements and it seemed rather futile to re-affirm or make any further resolutions on the subject especially in view of the coming conference proposed by Government.

Mr. McArthur therefore proposed the following amendment:—“That in view of further information which has come to light since the finance

meeting in May last in Madras, this meeting do leave the settlement of the finance difficulties of Planters to the Government of Madras on the advice of the conference, which the Government of Madras will call as soon as full information regarding planting requirements has been given," which was seconded by Mr. W. A. Lee and led to a second amendment by Mr. Murphy and further discussion.

On Mr. Murphy's amendment being put to the vote it was lost and Mr. McArthur's amendment was carried by a substantial majority.

Since the U. P. A. S. I. meeting the Conference of Planters and Bankers has been held and returns of financial requirements were sent in amounting to some 3½ lakhs weekly.

A strong resolution was sent up to the Government of India backed up by the Planting Industry asking the Government of India to provide a sum averaging 3½ lakhs per week to be placed at the disposal of the Banks for planting purposes only and here the matter rests for the present.

Before leaving this subject we would like the meeting to express their thanks to the Exchange Banks and the Presidency Bank for the way they have helped us out under most trying circumstances and for their assurance that they will do their utmost for us in the future.

TONNAGE.—This was taken up by Mr. Murphy and a resolution was passed asking the Government of Madras to receive a deputation of Planters to discuss the position. This deputation was to have met at Ootacamund on the 5th of October but owing to the short notice it was found impossible to send in our case before the Conference and it was postponed till His Excellency's visit to Calicut when it was dealt with by Mr. Nicolls, the Chairman of the U. P. A. S. I.

The chief points brought up were the shortage of tonnage, high rate of freights, and the demand that 15% of homeward freights must be paid on this side which was not insisted on before the war.

As regards the first some improvement has already taken place.

The rate of homeward freight is already exorbitant with a possibility of going still higher.

With reference to the last it was pointed out that 15% of the present freight was considerably more than the total freight in pre-war times and on tea it would mean a further 3½ cents per pound added on to our financial requirements out here which is a serious matter with the present financial difficulties.

His Excellency promised to consider all the points brought forward.

Tea allotments practically come under the same heading as further allotments are no use unless we have the shipping space.

In anticipation of more tonnage every effort has been made to get the allotments increased to equal the tonnage allotted to Madras, Tuticorin and West Coast ports by the Ministry of Shipping but here we seemed to be up against a stone wall.

The Ministry of Shipping states that we can ship certain amount of tea and the Food Controller insists that we must ship so much less while as regards coffee it is absolutely the reverse. This subject was fully discussed at the Ootacamund Conference and at Calicut and we are greatly indebted to the Hon'ble Mr. Barber and Mr. Nicolls for the time and trouble they spent and as a result have had a further increase of 13% allotment on tea.

It is difficult to reconcile the actions of these two departments at home where one gives and the other takes away and *vice versa* and it is a very strong argument in favour of having better representation in London to look after our interests.

COCHIN HARBOUR.—A previous resolution of 1915 regarding this subject was re-affirmed and it was also one of the subjects of discussion of the Calicut deputation when I had the honour of personally placing the matter

by Mr. H. F. the Governor of Madras. A copy of my remarks on the subject has already been sent to the Honorary Secretary for circulation amongst the Members of the Association.

SCIENTIFIC DEPARTMENT.—We were advised that the Government of Madras were prepared to go on with the new scheme as far as the Experimental Stations were concerned and these are being pushed on with.

It was also decided that the initial headquarters of the Planting Mycologist should be in Coimbatore where he will have every facility for starting his work till such time as the most suitable centre for the permanent station can be decided on.

TEA IMPORTS INTO INDIA.—Government was respectfully requested to take the necessary steps to prevent the importing of all outside tea into India, as the increasing Indian consumption will afford some measure of relief in the position caused by war conditions and the present restriction of exports.

IMPERIAL PREFERENCE FOR TEA AND COFFEE.—The U. P. A. S. I. re-affirmed its adherence to an Imperial Preferential Tariff for both British grown tea and coffee.

ACT XIII OF 1859.—A strong resolution was passed against the proposed amendment of Act XIII deleting the penal clauses.

BRITISH EMPIRE PRODUCERS' ORGANIZATION.—This Organization has already done work on our behalf and this led up to the proposal of a South Indian Association in London or a branch of the U. P. A. S. I. and the following gentlemen were asked to form themselves into a Committee to organise the scheme :—

Messrs. H. M. Knight, G. L. Acworth, Geo. Romilly, C. A. Bannatine, H. P. Hodgson and Brooke Mockett.

This subject will probably come up for discussion during the meeting, so we will leave it in the meantime.

INDIAN TRADE COMMISSIONER IN LONDON.—It was thought advisable to at once get into touch with this official with a view to further developing our Industries now and after the war.

FIRE INSURANCE ON TEA FACTORIES.—There was some discussion on this subject and it was resolved to ask the Madras Insurance Association to revise the classification of Tea Factory risks under the Madras Tariff and to reduce the rates to the level of the Ceylon Tariff.

PLANTERS' WAR FUND.—It was resolved that this fund be again brought to the notice of our men now in His Majesty's Forces.

BUDGET 1917-1918.—A proposal was made to increase the Secretarial staff to be considered during the year and we think there is little doubt that this is necessary as at present far too much work is thrown on the Chairman and the Planting Member.

A further proposal was made to transfer the offices of the Association to Madras which we think will eventually be necessary. If the Association is to do the work it should do it must be in close touch with Government, the Banks and Shipping Firms. No doubt the coffee districts may not care for this proposal but their objections can only be more or less sentimental and we feel sure if they will consider the advantages to be gained they will agree.

LABOUR DEPARTMENT.—A proposal for the re-organization of this was put forward and it is hoped some workable scheme will be devised.

INDIAN DEFENCE FORCE.—This was taken up by Mr. Pinches who pointed out the hardships, expense and inconvenience many planters had been put to, to say nothing of the unnecessary disorganization of planting business. This subject was further taken up by the Calicut Deputation to His Excellency the Governor of Madras who promised to have our requests considered.

ELECTION OF OFFICE BEARERS.—As you have no doubt all seen from the Press reports Mr. J. S. Nicolls was again appointed Chairman

for the current year. He has worked well for us in the past and it was the general opinion that it was a pity to have any change in the Executive during these critical times. The two Vice-Chairmen being Messrs. Abbott and Tipping, the same as last year, which I am sure will meet with the general approval of all District Associations.

We think, gentlemen, this covers most of the business of the meeting at Bangalore as well as the Ootacamund Conference and Deputation to His Excellency the Governor at Calicut at both of which I represented the Association.

There are several subjects which will come up for discussion later such as the re-organization of the Scientific Department, Labour Department, London Branch of the U. P. A. S. I. and there is no doubt later correspondence regarding these subjects which will have to be considered.

If there are any further details we can give you or any questions you wish to ask we shall be very pleased to answer them.

The Delegates were thanked for their reports and for the trouble they took on behalf of the Association.

SHIPPING.—Read correspondence from the U. P. A. S. I. and the following resolution proposed by Mr. McArthur was carried:—

“That in view of the information recently published in the *Madras Mail* regarding the action taken by the Indian Tea Association in London for the supply on f.o.b. lines of the Government requisitions of Indian and Ceylon Tea for the United Kingdom requirements, this Association draws the attention of the U. P. A. S. I. to the necessity of immediately taking action to safeguard South Indian Districts in the matter, and to cable the London representative to do likewise in London, if the purchase of Government requirements is to be controlled by the Indian Tea Association there South India be represented in that body.”

Mr. Richardson in seconding the resolution said: I have much pleasure in seconding the resolution as I think it is high time our London representatives took action in protecting our interests.

That South India has not had fair treatment over tea exports I have no hesitation in saying and we have reason to believe that North India has already exported something like 84% of tea for war exports to the United Kingdom while that South India to the 11th October has only shipped 15.71 per cent. of her total estimated crop for the current year.—Carried.

With reference to the U. P. A. S. I. letter of 11th October *re*. freight on tea, it was resolved the U. P. A. S. I. be again asked to approach the Madras Government regarding the demand for prepayment of 15 per cent. of homeward freight from Indian Ports as there is a further severe tax on the exchange banks.—Carried.

Mr. Milner's resolution was withdrawn at his request.

INDIAN DEFENCE FORCE.—The following resolutions proposed by Mr. McArthur and seconded by Mr. Gerrard were carried unanimously:

Resolution 1. That the Association asks for the publication of the Selection Committees decision at the meeting held in Quilon on the 18th August last.

II. That the statement made to the U. P. A. S. I. regarding members of Indian Defence Force not being required to travel more than 5 miles to attend drills be confirmed by headquarters and be given a wider circulation.

III. That the present system of training in Planting Districts cannot be conducive to the efficiency aimed at owing to the very limited number of men available, besides being of the greatest inconvenience, hardship and expense to those concerned to say nothing of the disorganisation of planting business, we would respectfully point out to Government that greater efficiency would be obtained by having bi-yearly or tri-yearly camps at more convenient centres where a larger number of men would be available.

RE-ORGANISATION OF THE U.P.A.S.I. was discussed and Mr. Richardson said:—Personally, I would rather someone else took up this subject as I was one of the chief movers in the starting of the present Labour Department but I cannot help saying that any scheme for the re-organisation of the U. P. A. S. I. must include the Labour Department. There may be certain opposition from those who have not used the Department and from certain Districts who do not require its help meantime but to my mind Labour is one of the chief interests of the planting industry and if the U. P. A. S. I. is to be what it should be it must include this very essential item. I think our aim should be to amalgamate all our different schemes under one subscription and I think I am right in saying that this was the general opinion of the delegates at the Bangalore meeting. How funds are likely to be distributed between these different departments of course is a matter which will require careful consideration but if we take the Scientific Department alone we find that some products require more help than others and at the present time we are all paying on the same basis. In the same way with the Labour Department, some districts require it more than others and there must be some give and take in a matter of this sort. One point that must not be overlooked is that the Labour Department is at present supported by over 100,000 acres of the area subscribing to the U. P. A. and I would ask those who do not consider the Labour Department necessary to them to take this into account.

To my mind what we really want is the re-organisation of the whole U. P. A. S. I., including as well the London representation which is of very vital importance to us at the present moment. I do not wish to say any more at present as I am in hopes that other members will come forward with suggestions or at any rate place any objections they have to the amalgamation scheme before the council of the U. P. A. S. I.

I am quite aware that there is a very strong feeling that for some time the U. P. A. S. I. has been run by certain members who have given a considerable amount of their time and have been put to considerable inconvenience in trying to look after the interests of the Association. I do not say they expected any particular thanks for the trouble they have taken but they have certainly come in for a fair share of abuse and are naturally diffident about taking any leading part in the present re-organisation scheme until suggestions have been thrown out or some other members will come forward with help or give their ideas on the subject.

SOUTH INDIAN PLANTING ASSOCIATION.—The Honorary Secretary was instructed to acknowledge letters Nos. 51/17 advising that the present committee in London with power to add to their numbers should work in conjunction with the U. P. A. S. I. until such time as the re-organisation scheme is put through.

COOLY CHUTTRAM AT MUNDAKAYAM.—Read letter from the Mundakayam Association it was resolved that this Association support the scheme and that the Mundakayam Association be approached regarding plans and cost of building.

SRI MULAM DELEGATE.—Resolved that Mr. Tait be asked to represent the Association.

With a vote of thanks to the Chair the meeting ended.

(Signed) J. S. WILKIE,

Chairman.

(„) W. F. STEPHEN,

Honorary Secretary.

LABOUR DEPARTMENT.

The amount of time and trouble required to dispose of some cases submitted to us is almost incredible. As instances of steady persistence and perseverance on the part of our Agents I give the following examples:—

1. KANDAN.—A warrant was issued for this man in 1912, two years before the Department was started. When the matter was taken up by us the man was thought to be working in the Anamalais, but could not be found there, he was entered in the Defaulter's sheet in May 1915 and we found him working in the Wynaad—in October 1917.

2. MUTHUSAWMY *alias* PALANI.—Absconded in 1913, we found him last May, but owing to charges of Superintendents of the complaining Estate, the case was withdrawn. He does not know this, and offered our Agent Rs. 10 not to report where he was in the Wynaad a few weeks back.

3. KANDI *alias* ARUNACHELAM. Our help was asked in 1915 "As warrants which were sent through the Police had been returned unexecuted." We do not know how old the case really is. We followed clues all over the country, and actually ran the man to ground on an Estate in 1916, but it was declared he was not there. We took up the hunt again, when he was reported to have died eleven months previously, and it took us four months to find out that was not true, and six months more before we successfully dealt with him in July, 1917.

4. GNANASIGAMONI.—Absconded to the Straits in 1910. We had no requisition from the Estate but learning of the matter from our own resources, we recovered his advance Rs. 200 in July, 1917.

VEERAPPAN *alias* MUTHUVEERAN *alias* DEVASAGAYAM.—Our help was asked in 1915 and we have been hunting him all the time till last April when we finally extracted what was due from him.

6. SHANGUNNI.—A defaulter since 1913, he had defrauded six Estates, was identified by means of finger prints. Jailed after a month's remand for three months at Coimbatore for attempting to cheat the Deputy Director. On expiry of his term re-arrested and after a remand of a month sentenced in Travancore to six months. He will be released about Christmas. We traced previous convictions for, Personating a Government Servant, Extortion, Putting in fear of bodily harm, Using as genuine a document known to be a forgery, Cheating, Criminal Breach of Trust and cheating by personification. He is not a desirable character.

7. MUNIAN.—A cooly, we started after the man in April, 1916, followed him from Kottur in Pollachi to Uttukuli, to Baswapatti, to an Estate, and then received news he was to be married at Sirukalanji and so in June after fourteen months' chase we caught him—dead, he had expired the night before the Agent came up with him. He had an adventurous career.

8. MUTHIAN was another cooly on whose track we were first put in March 1916 when he was reported to be on an Estate in Coimbatore district. We found him and recovered the money at Madura in May 1917.

9. ARUMUGAM *alias* KONDA of Palladam a defaulter since 1913 four warrants issued against him, said in 1914 to be working on an Estate in the Anamalais, we followed and arrested him in the Wynaad in September 1917.

10. ANGAMUTHU.—Estate wrote "He has dodged warrants for years" we traced him and found him a shining light of a mossusil Church "most respected" and arrested him in September 1917.

EMIGRATION.—The popularity of Malaya among Maistries and coolies is very great. The Madras Government restricted the number of Emigrants to that country from 1st January to 31st December 1917 to 82,000 adult coolies, males and females. A larger number of Kanganies had registered licenses in Madras and Negapatam during 1917 than in any previous year. "The accommodation of the Steamers available would be quite inadequate if the activities of the recruiters had not been restricted." "It has been found necessary to prevent Kanganies who have shipped coolies from bringing any more to the depots for two or three shipments." "Further precautions have been taken temporarily to stop recruiting until the congestion is relieved." (Extracts from letter from the Emigration Agent S. S. & F.M.S. Madras, dated 13th July, 1917). The Controller of Labour F. M. S. Kuala Lumpur in his letter dated 23-7-17 to the Secretary to the P. A. of Malaya deploras the fact that Commissions to Kanganies of Rs. 10 per head have become common. "Planters were never in a better position to obtain labour from India than at the present time: if extra tonnage had been available the year would have exceeded the highest record of former years." Superintendents are urged not to give Commissions exceeding Rs. 10. An exception is made in the case of Northern Telugus where higher commissions are sanctioned, "as Railway fares have been increased and the recruiters are liable to incur increased expenses in the event of labourers whom they recruit being rejected." Be it remembered that out of this commission of Rs. 10 or 12 per head, the Kanganies have to pay (1) advance to the coolies which is not recoverable, (2) their own expenses in India, (3) Railfares for coolies to Madras or Negapatam and for the return of rejections. All of which Kanganies are willing and anxious to pay. Yet Planters in S. India will not agree to combine to restrict advances, which is one of the principal objects of the U. P. A. S. I. Labour Department.

AYLMER F. MARTIN,

Director.

Bangalore, 1st December, 1917.

OUR DAY.

We have been asked to insert the following which we do with pleasure :—

We hear that Mr. R. A. Stott, Manager of the Wesleyan Mission Workshops, Tumkur, has presented the Planters' Stationery Stall with a palm stand in recognition of the support the works have had from planters. Mr. Stott made special mention of the

A. C. W. Denne R. D. Lovett
J. G. Hamilton Mrs. Randolph Morris
F. M. Hamilton Mrs. Morgan
E. V. Hunt W. I. Scholfield
Noel Kirwan C. A. Pittock
H. Kerr

The thanks of planters generally are heartily accorded to Mr. Stott for his generosity.

CORRESPONDENCE.**Coffee.****ALLOCATION OF SPACE.**

A telegram was despatched to the Secretary of State for India care of H. E. the Viceroy, Delhi, on the 13th November, 1917 reading: "Request immediate steps be taken inform us what arrangements will be made allocating space shipment South Indian Coffee crop this season :—

Secretary, United Planters' Association of South India."

To which the following reply has been received :

No. 1028—D.

Government of India,
Department of Commerce and Industry,
Delhi, the 30th November, 1917.

From

G. S. Hardy, Esq., I. C. S.,
Under Secretary to the Government of India.

To

The Secretary,
United Planters' Association of South India,
Bangalore.

Sir,—With reference to your telegram of the 13th November 1917 to the address of His Majesty's Secretary of State for India, I am directed to say that the Government of India have on several occasions represented to His Majesty's Government the difficulties caused to the coffee industry in this country by their inability to secure freight to the United Kingdom. In reply they have been informed that the difficulty of providing freight for those needs of the United Kingdom which are essential for the prosecution of the war is such as to preclude the possibility of providing any freight on controlled liners for coffee. A further telegram has moreover been received within the last few days which indicates that any improvement in this position is extremely improbable. I am therefore to express the great regret of the Government of India that they are unable to hold out any hope that it will be possible to assist the industry in the direction which you desire.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) G. HARDY,
Under Secretary to the Government of India.

Coffee.**ESTIMATES OF COMING CROP.**

The following telegram was received from Mr. Mockett :

"Cable estimate total coming coffee crop."

To which the following reply was sent :

"Coming crop estimated not less than ten thousand tons."

On 29th November Mr. Mockett wired :

"Your letter twenty first September fully realise desperate position Coffee planters am doing my utmost."

Later he wired :

"Is estimated ten thousand tons coming crop all plantation. Do you confirm only two thousand eight hundred tons past crop shipped here."

To which the following reply was sent on November 1st :

"Ten thousand tons estimated total crop. Three thousand two hundred and eighty-nine tons past crop shipped remaining month September two thousand nine hundred and seventy one tons all tonnage refused."

On the 9th November Mr. Mockett wired :

"Cable estimate total plantation of coming coffee crop."

To which the following reply was sent :

"Current plantation coffee crop seven thousand eight hundred and sixty five tons."

On the 9th October Mr. Mockett wrote the Secretary as follows :

"Since I last wrote to you I have had a long interview with the officials of the India Office with regard to the shipment of the balance of the past coffee crop and also about tonnage for the coming crop."

"At their suggestion I have cabled to you as follows : 'Cable estimate coming coffee crop.' On receipt of your reply I shall be able to proceed with the negotiations."

And on the 17th October (last letter received) he wrote as follows :

"I am in receipt of your three letters dated 31st August and of your cablegram of 12th instant as follows : 'Coming coffee crop estimated not less than ten thousand tons' for all of which I thank you."

"The cablegram which is in answer to one I sent to you will enable me to negotiate with Government for facilities for import of all or part of the quantity you mention. As I mentioned in my last letter to you my enquiry was made at the suggestion of the officials of the India Office. Negotiations for tonnage for the balance of the past coffee crop are still proceeding between the India office and the Shipping Controller. The difficulty you refer to about an Import License from the Board of Trade having to be produced in India before shipment of Coffee is allowed has been surmounted, as you will have seen from the letter of the Officiating Collector of Customs, Madras, dated 1st September, No. 4476/16 which permits the Board of Trade Licenses to be dispensed with."

From the cablegrams and letters it will be seen and appreciated the unremitting zeal with which Mr. Mockett pursues the coffee planters interests.

But the letter published from the Secretary of State for India in reply to the Secretary, U. P. A.'s telegram appears final in its decisiveness. It is to the Government of India the coffee planter must look to help him out of the disastrous obduracy of the Shipping Controller.

Food Controller's Tea Purchase Scheme.

For ready reference telegrams between the Indian Tea Commissioner, Calcutta and the Secretary, U. P. A. are published in sequence. From the telegram dated 3rd instant from the Indian Tea Commissioner it will be deduced that an alteration in the purchase scheme has been made by the Food Controller at Home, and that the Indian Tea Commissioner will publish a new scheme when he has disposed of certain doubts that exist between him and the former. The Secretary has taken on himself, to prevent

delay, to promise in the name of the Tea Planting Community of Southern India that every assistance will be readily granted by them in collecting these figures and statistics necessary to allot South Indian Tea. We cannot too forcibly impress on Companies and Managers of Tea Estates the vital necessity of filling up the form when they receive it to enable them to share in the allotments about to be made under the new scheme. It may also be pointed out that those who do not fill in and send in the forms, will most probably not receive allotments.

Incidentally, it may be mentioned that such returns will be of immense utility and assistance to the United Planters' Association Office where the returns will be recorded, and will prevent the constant issue of circulars asking for information. These statistics should be kept up annually and will be found of great advantage to Government who apply for them and to planters who have to supply them. It is needless to say that incessant inquiry for them is a constant worry to planters and becomes an irksome duty. This is an age of statistics and Government mean to have them, so it will be useless to place obstacles in the way, by refusals or procrastination. By furnishing the information asked for an added sorrow will be taken from the planter's life for we know

"Sorrow breaks seasons and reposing hours,
Makes the night morning and the noontide night."

Constant circulars from the U. P. A. Office for information, which should be readily accessible in it, can be looked upon as nothing but a nuisance.

Telegrams.

Madras, 23-11-17.

Secretary, U. P. A. S. I., Bangalore.

632 Tea Controller for India requires urgently statistics of crop production 1914, 1915 and 1916 for each estate area stop suggests that in case of public companies these figures can be checked by published accounts and in case of private concerns by local committee of planters stop estates newly coming into bearing or which have extensions newly coming into bearing should in addition to figures for past three years give actual crop manufactured in 1917 and estimated crop to be manufactured in 1918 stop have you any of these figures available if not can you obtain them stop would planters association undertake duty of verifying figures in manner suggested by Tea Controller.—Madras Revenue.

Replied that this Association will give every assistance in their power to collect the information required.

Calcutta. 28-11-17

Secretary, United Planters' Association of Southern India, Bangalore.

68 T. C. I have to-day sent following telegram to Madras Government begins 66 T. C. many thanks for your telegram 643 of yesterday stop as scheme for purchase of tea will probably be introduced from first January and it is essential that in order to work out provisional allotment I should have as soon as possible at any rate preliminary figures of manufactured crop in 1914, 1915 and 1916 with details in the case of new estates and necessary after check stop in addition to figures of production figures showing separately acreage under mature tea and under tea four, three, two and one year old should also be furnished stop am sending copy of this wire to Secretary United Planters' Association to save time ends.—TEACOM.

Bangalore, 29-11-17.

TEACOM, Calcutta.

Your wire twenty-eighth tea shipped from South India taken from Indian Tea Association Annual Report 1914 20973120 pounds stop 1916 22355124 pounds stop 1916 18991830 pounds rest of wire subject of letter Upasi anxious to give every assistance.—Planting.

Calcutta, 30-11-17.

Secretary, United Planters' Association of Southern India, Bangalore.

114 T. C. Could you kindly furnish me with information regarding the agents of tea estates in Southern India to which shipping orders should be sent and the port from which estate wishes its teas to be shipped. TEACOM

Bangalore, 1-12-17.

TEACOM, Calcutta.

Your wire 30 will collect information you require and forward at earliest opportunity.—Planting.

Calcutta, 1-12-17.

Planting, Bangalore.

Thanks for your wire of 29th November stop in addition to figures of total production, etc., which will be required to determine total Southern India allotment similar figures will be required for each individual estate in order to work out estates allotment stop trust your association will assist me by obtaining these figures as early as possible since I cannot work out allotment till figures for every estate received and it is likely scheme will start from 1st January if not earlier.—TEACOM.

Bangalore, 3-12-17.

TEACOM, Calcutta.

Your wire first will do utmost to secure and forward information required but time mentioned insufficient to collect same over scattered area.—Planting.

Calcutta, 3-12-17.

Secretary, United Planters' Association

of Southern India, Bangalore.

141-144 T. C. Food controllers scheme for Tea purchase received stop basis of allotment altered stop he will now take up to forty per cent of crop of 1917 please therefore stop collection of statistics previously asked for stop shall inform you later what statistics required after clearing up points of doubt with food controller.—Teacom.

Calcutta, 3-12-17.

Editor, "Planters' Chronicle," Bangalore.

151-159 T. C. If not published kindly withhold the notice regarding tea purchase scheme forwarded to you for publication under my number 38 T. C. to 60 T. C. dated 26th November 1917 as food controller has altered scheme stop fresh notice will be issued later.—Teacom.

Replied as follows :—

I have since received your two wires of the 3rd instructing me to hold fast pending further instructions from you. Having set the wheels in motion it will in my opinion be best to continue collecting the figures that may be useful to you later on, and have every confidence that every tea company and manager will give every assistance in filling up the forms, as required.

Calcutta, 5—12—17.

PLANTING, Bangalore.

227 T. C. On recommendation of Government of Madras I approve of the following gentlemen being appointed as Committee for Southern India to advise me in carrying out food controllers scheme for purchase of tea in India stop Hon'ble Mr. Barber Messrs. Nicolls, Pinches, Mackie, Richardson and McArthur stop kindly inform me whom I should address when I wish to consult the Committee.—TEACOM.

To the above the following reply was sent :—

Wire fifth. When necessary consult Committee address Nicolls, Devarshola, Nilgiris South India planters require ample time for collection statistics.—Planting.

Prohibition of Coffee to U. K.

The following is a copy of wire sent to the Secretary of State for India, London, on the 8th Nov., by the South Mysore Planters' Association :—

"South Indian Coffee Industry threatened disaster owing refusal tonnage stop if tonnage impossible pray Government consider purchasing Indian Coffee crops stop South Mysore Planters' Association."

The Coorg Planters' Association has sent the following wire to the Secretary of State for India, London :—

"Urge Shipping Minister give coffee space England France this seasons crop with moderate freight stop very urgent."

The following wire was sent to the Secretary of State for India by the Bababudin Planters' Association :—

"South Indian Coffee Industry critical state shipping Ministry refuses space if Government does not meet situation coffee planters will be ruined pray arrangements be made allocating space."

OOTACAMUND,

27th November, 1917.

THE MANAGING EDITOR,

Planters' Chronicle,

Bangalore.

The Re.Organisation of the U. P. A. S. I.

DEAR SIR,—I am glad to see that Mr. Thomas Hunt has taken up this matter.

It may be that some will not agree with his views, but it seems to me that he voices the only alternative to reorganization, and that is that the U. P. A. S. I. should sink back to what it was 10 years or so ago before it had any appendages.

Mr. Hunt exhibits a conservatism which is proverbially agricultural and has no need for luxuries—well so long as they remain luxuries to him and not the needs of existence he is wise—but all I fear are not in the same case as he is.

Mr. Hunt has no use for the Labour Department because it does not appear to him to be a sound business proposition to spend 2 lakhs to recover Rs. 30,000. Surely that is so, but has it never occurred to Mr. Hunt that there may be some ratio between advances that are recovered after they might have been deemed lost, and those that are absolutely irrecoverable? Would he think it exaggeration to say that that ratio is 10 of the latter to one of the former? I do not think he can, if he will only look at the figures of lost advances given by the Mysore Associations when Mysore was at the forefront of the clamour for labour reform of some sort. If things may be easier now in Mysore, they certainly are not elsewhere and if it is possible for the Labour Department to recover Rs. 30,000 that were otherwise irrecoverable, it is only reasonable to suppose that it can save far more to the community, if proper use is made of it, by preventing advances being made to undesirable persons. A great deal has been done on these lines already, but the protection so afforded can only be gradual, for it takes time to get all the bad hats earmarked. Undoubtedly the work in this respect is harder than it should for the Department does not deal with all the labour of the estates for the Association even. Mistakes are made but I feel confident that they will become fewer and fewer, until the bad advance becomes comparatively rare. Mr. Hunt must take my word for it the Department can and does do what no subscriber could do for himself, at any cost whatever.

The Department is not perfect, far from it, but it is useful in spite of many factors having militated against its utility.

The Scientific Department is another "luxury" but one which planters cannot control according to Mr. Hunt. Well we all learn by mistakes so there is some hope yet.

That the Government ought to run a Scientific Department entirely at Government expenses is a matter of opinion and one that I need not discuss. I would remind Mr. Hunt, however, that one obligation is apt to lead to another and I would also point out that the use of public money for a earmarked "luxury" appears to run rather contrary to his argument that those who require and have use for such luxuries should have the pleasure of paying for them.

There is one "luxury," Mr. Hunt has overlooked, a small one, the Analytical Department; and it has been brought to my notice quite recently that an estate for the trifling fee of Rs. 20 has been enabled to effect a saving of Rs. 3,000 which without the services of this Department it could not have done. Oh it is a horrid temptation to be luxurious.

But in all seriousness I believe Mr. Hunt is right, we have but two alternatives in front of us either to go on and try and combine in everything, or to go back and successfully combine in nothing.

Yours faithfully,

E. F. BARBER.

THE EDITOR.

Planters' Chronicle,
Bangalore.

Regarding Circulars.

Dear Sir,—May I make a suggestion regarding the issuing of circulars to affiliated Associations. The frequent despatch of a separate circular to each of these Associations must necessarily entail a certain amount of thought and trouble on the part of the U. P. A. S. I. staff, whilst such circulars undoubtedly add considerably to the multifarious duties of the Honorary Secretaries who receive them. I will describe my own case. My members are scattered far and wide over very many square miles of country, and it takes days to reach some of them. The circulars have either to be printed or reproduced by other means, and envelopes addressed to scores of members. All this takes time, and is an appreciable expense during the year, and sometimes the whole thing turns out to be a wasted effort, as the same information is likely to appear a day or two later in the pages of the *Chronicle*, and one never knows when this will happen.

Now my suggestion is that the majority of these circulars should not be sent direct to the Honorary Secretaries, but be regularly published in the "recognised official organ of the U. P. A. S. I.," viz., the *Planters' Chronicle*. If there is any objection to embodying such matter in the pages of the paper, these circulars might be printed as separate leaflets, and posted enclosed in the *Chronicle*. This procedure would ensure every member of the U. P. A. S. I. getting the desired information simultaneously and without loss of time; and it would enable Chairmen and Honorary Secretaries of the affiliated Associations to deal at once with anything that concerned their own interests, instead of as under existing conditions having to wait an indefinite time for the reproduction and re issue of the said circulars. Besides, the appearance of the circulars in the *Chronicle* would tend to popularise the paper, and ensure the perusal of it more generally than is the case at present.

The only circulars that I would exclude from my proposition, are those of a confidential nature and such as first require the consideration of the U. P. A. S. I. Councillors. These circulars should continue as heretofore to be forwarded direct to the respective Honorary Secretaries. Whether my suggestion is practicable or not I leave others to decide, but I humbly think that anything that tends to save time and expedite business is worthy of our consideration. I therefore conclude with the hope that others will likewise favour us with their views on the subject.

Yours faithfully,

J. B. LESLIE-ROGERS.

Ootacamund,

14th November, 1917.

The Planters' Chronicle

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 50.] DECEMBER 15, 1917. [PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Secretary returned from visiting the U. P. A. Section at the Madras Exhibition grounds, and with the assistance of the Chairman arranged for the carrying on of the work, under the supervision of a keen and energetic Superintendent kindly engaged for us by Messrs. Parry & Co. The Secretary regrets to say that very few exhibits had been received, but hopes to find on his return to Madras on the 17th instant that a plentiful supply will have been sent in to fill the large space placed at the disposal of the U. P. A. S. I. by the Agricultural Department. Arrangements have been made for distribution of leaflets, and notices advertising the products of South India will be conspicuous. Exhibits should be sent by Mail train to be in time.

We publish the Proceedings of a General Meeting of the Wynaad Planters' Association.

The Director of the Labour Department publishes a further instalment on the work of his Department.

A letter from the Hon'ble Mr. Barber, Planting Member, to the Chairman on the Reorganisation of the Labour Department is published. It has been circulated to all District Associations.

Letters from Messrs. Vincent, Newcome, Mead and Dandison on the same subject appear in the correspondence columns.

Last week was published a cable to the Secretary of State for India from the Curers of Mangalore which was confirmed by a letter strongly supporting the cables of District Associations.

We call special attention to the letter from the Indian Tea Commissioner, Calcutta, and to the information he will certainly require. He has asked to have it collected in order to have it ready when he calls for it. We shall feel very much obliged if Superintendents of Tea Estates will prepare the figures according to instructions and send them into the U. P. A. Office.

DISTRICT PLANTERS' ASSOCIATIONS.**Wynaad Planters' Association.**

*Proceedings of a General Meeting held at the Meppadi Club,
on December 5th, 1917.*

PRESENT.—Messrs. Cheeseman, Copland, Eyre, Gauld, Gillatt, Lobban, Macleod, Mackay, Malcolm, Morres, Nicolls, Powell, Abbott (Honorary Secretary). **Visitors:**—Mr. Todd, I. C. S., Special Settlement Officer Malabar and Nilgiris, Mr. Murray.

MR. MALCOLM IN THE CHAIR.

2352. **PROCEEDINGS OF LAST MEETING.**—These were confirmed.

2353. **MADRAS EXHIBITION.**—Mr. Malcolm stated what he and Mr. Lobban had done. Every estate was asked to send tea at the rate of 2 lbs. per 100 acres to Messrs. Parry & Co. for the use of the caterers, 6 annas per lb. will be paid for this. It is hoped that Members will also send exhibits. Packets of tea and coffee will be sold by the caterers on commission.

2354. **JOINT RESPONSIBILITY OF MAISTRIES SIGNING CONTRACTS (para. 2350).**—Mr. Malcolm stated that he had not yet heard from the Divisional Officer.

2355. **RESETTLEMENT OF WYNAAD.**—Mr. Todd made a short statement of the lines on which it is suggested the settlement should be carried out. A discussion followed. Mr. Todd has very kindly sent a memorandum which is printed separately and circulated with these Proceedings. The Chairman said that we were all greatly obliged to Mr. Todd for having come to the Meeting and for having explained matters. He hoped the suggestions that had been made on certain points would be favorably considered and proposed a very hearty vote of thanks to Mr. Todd which was carried unanimously.

2356. **GOVERNMENT PURCHASE OF TEA.**—Read letter from Mr. Evans, Collector of Malabar, asking for certain statistics. Mr. Nicolls explained the position as far as information was available. The following Committee was appointed to collect the figures required, Messrs. Malcolm, Eyre and Abbott. The Meeting was of opinion that it would be advisable to appoint Committees in all Districts. It was agreed that it would be unfair to take 1917 crops as a basis of purchase as in the case of several estates these had been deliberately restricted.

2357. **POLICE AND PLANTERS.**—Read letter to the Honorary Secretary from Hon'ble Mr. Barber with copy of a letter to him from Mr. Thomas, Deputy Inspector General of Police in which a complaint was made that the Police were having difficulty on certain estates in North Malabar in the execution of warrants though the warrantees were known to be there, "either because the Planter did not take any trouble to make enquiries or gave the Police a certificate that was deliberately incorrect." Mr. Thomas went on to say:—"It seems to me that this is a difficulty which the Planters own Association ought to be able to settle and I am writing to you to ask if

this cannot be done." A discussion followed. Mr. Nicolls thought that Maistries who had taken on coolies advanced elsewhere were to blame. The following resolution was proposed by Mr. Gauld seconded by Mr. Eyre and carried.—"Resolved. That this Meeting much regrets that Mr. Thomas' complaint should be necessary after the courteous treatment Planters have received from the Officers and all ranks of the Police. We trust that it will be proved on investigation that there has been some misunderstanding. The Honorary Secretary is instructed to write to Mr. Thomas and ask him to give him the names of the Planters whose conduct is complained of to enable the Association to enquire more fully into the circumstance. The meeting is somewhat surprised that the Hon'ble Mr. Barber has seen fit to write to Government suggesting that certain unnamed planters who are 'thought' to have obstructed the police should be penalised and even prosecuted without personally investigating the subject on an *ex-parte* statement and without referring to this Association as suggested by Mr. Thomas."

2358. ANAMALAI RESOLUTION.—Read letter from Mr. Congreve Honorary Secretary. Mr. Nicolls stated that the proposal for the Reorganisation of the U.P.A.S.I., would be circulated shortly and suggested that the consideration of the subject should be postponed. This was agreed to.

2359. REGISTRATION OF CARTS.—Mr. Gillatt read the report of the Committee of the District Board. Resolved that the Association considers that Registration of carts ought to be established in the Malabar District.

2360. POODAPADY-HOTEL.—Read Mr. Gillatt's letter. Resolved that C. Chungaren be offered Rs. 15 a month, in addition to profits of messing. The money to be provided by Members subscribing at the rate of Rs. 6 per annum. Members who are willing to subscribe should inform Mr. Gillatt and send him Rs. 6. Resolved to adopt Mr. Gillatt's proposals for halting fees which would be recovered from visitors

<i>Viz</i> SUBSCRIBERS for less than 12 hours ...	...	0	8	0
over 12 hours ...	...	1	0	0
Stabling or Motor shed ...	...	Free.		
NON-SUBSCRIBERS for less than 12 hours ...	...	1	0	0
over 12 hours ...	...	2	0	0
Stabling and Motor shed per day ...	...	0	4	0

Mr. Gillatt was thanked for the trouble he has taken.

A vote of thanks to the Chair terminated the Proceedings.

(Signed) B. MALCOLM,
Chairman.

(..) C. E. ABBOTT,
Honorary Secretary.

LABOUR DEPARTMENT.

I quote a few cases of an unhappy nature, because they are fair examples of what the Department can and cannot do:—

A. was a planter who advanced a Maistry and wrote us the man had not arrived. We reported that we knew the man had advanced coolies more than the amount of the advance and was then collecting them together preparatory to taking them to the Estate. The Maistry left his village with his full gang but took them to Cochin, where it is impossible to follow him with a warrant.

B. another planter sent us a Maistry asking us to advance him Rs. 200 if we considered him capable of recruiting coolies. Enquiries were satisfactory and we advanced the man. He collected 40 coolies and took them to an Estate in quite a different district than that which he was advanced.

These are most unsatisfactory and exasperating cases, and both A. & B. are extremely annoyed with us, but although in most cases moral suasion is sufficient to prevent trickery of this sort, it must not be forgotten that we have no powers to stop a Maistry proceeding where he pleases and the reports of the Agents seem in both cases to have been quite correct as far as they went, although they did not appear to advantage in those special cases. In some cases of a similar nature, it is usually known to our Agents that the men intend evading their contracted obligations before they actually start. A few such cases might be quoted but they only go to prove the same fact that we cannot prevent a Maistry abseonding and cannot even obtain help from the Courts until the man has actually committed an offence, however much we may be satisfied of his intention to do so.

C. was the case of a Kangany who had an advance from an estate in No. 1 district, he turned up with his gang of coolies at one of our offices saying he had run out of funds and wanted some more for travelling expenses. He and his gang were detained pending a reference to the Estate for permission to pay the necessary money. In the meantime a telegram from the Agent from whose Circle the Kangany came stated that he had obtained certain information which led him to suspect the whole gang was going to No. 2 district, 300 miles further North. A search among the belongings of the Maistry and the coolies was made, and an extraordinary scene ensued. Currency Notes for a considerable amount were found in a small box belonging to the Kangany, which also contained letters in the Vernacular from a Writer on No. 2 district Estate, which all ended up with the sentence "We must pray for each other." The Kangany was then arrested for attempting to cheat, and on this the coolies seem to have lost their heads, denying all knowledge of everything, of each other, and even of their own wives and children. It was dark by this time, and a ruse was then successfully tried. One woman with an infant in arms was told that as no one knew anything about her she might return to her village. She was given a rupee to go away with, but was not out of ear-shot before her husband called her back. This caused some laughter in which all the other defaulters joined, and then confessed the whole thing, and we got sufficient evidence to secure the conviction of the Kangany.

D. A defaulter was arrested and sent from South Canara to the Pollachi Court in Coimbatore. He was given time to pay up his debt, which he failed to do. He was re-arrested and sentenced to 3 months for contempt of Court. His relations then paid up his debt, on the understanding that the Department would obtain his release. All efforts to affect this have been

fruitless and the man has to serve out his sentence. No doubt the man got all he deserved, but it is an unfortunate case, as it smacks of "Bad Faith" on the part of the Department.

ABSCONDERS TO FOREIGN COUNTRIES.—A. an Agent, hearing that a certain Maistry whom he knew owed a Subscriber Rs. 120 had left by train *en route* to the Straits, followed him at once, caught him up at Negapatam and made him return. When on this trip he came across a Maistry at Negapatam also *en route* to the Straits, who he knew was in the employment of a subscriber and so he brought him back also.

B. an Agent learning that another Maistry was leaving by train ostensibly for the Straits although he owed Rs. 300 to a subscriber, proceeded to make him get out and recovered Rs. 30 from him, twice more he was caught entraining and Rs. 185 and Rs. 50 got from him, but then he gave the Agent the slip and got away on the fourth attempt still owing some Rs. 35, but that the Agent accomplished as much as he did was creditable.

C. A subscriber advised us by wire that a Maistry had bolted with all his coolies and asked us to be on the look out for him in his village. We referred the matter to the Agent concerned who advised us he had learnt the man had proceeded without returning to his village direct to Negapatam, and that he had started in pursuit. He failed to find him there, but suspecting that he was making for Ceylon, followed at once to Mandapam, where he found the man and his coolies. He was unfortunately not able to obtain satisfaction, and the lot were shipped to Ceylon. The Estate to which he went was so pleased with the man that within a fortnight they sent him back to get more coolies. Our Agent at once arrested him, and he was put in jail. On expiry of his sentence, a Civil decree has been obtained for the total debt. The Ceylon Labour Commission is doing its best to arrive at a satisfactory settlement of the matter. I take the opportunity of saying that in several other instances, not only in the case of British India, but of Mysore State, we have obtained assistance from the Ceylon Labour Commission, without whose kind offices it would have been impossible to recover any money from defaulters who emigrated.

AYLMER Ff. MARTIN,

Director.

AGRICULTURAL STATISTICS.

UPPER BURMAH.

			ACRES,
Total area	...	...	53,851,776
Area under forests	...	...	13,109,015
Area not available for cultivation	...	...	20,929,700
Culturable waste not fallow	...	...	10,463,402
Current fallows	...	...	4,127,148
Area cropped in 1916	...	...	5,222,511
Area under irrigation	...	...	1,077,487
Area under Rice	...	...	2,185,443
Area under Food grains...	...	...	3,304,268
Area under Oil seeds	...	...	1,408,164
Area under Coffee	...	...	78
Area under Tea	...	...	2,299

CORRESPONDENCE.

Office of the Tea Commissioner for India.

Block B-3, Clive Buildings,
Calcutta.

No. 331 T. C.

Tea Purchase Scheme.

From LT.-COL. W. M. KENNEDY, C. I. E., I. A.,

Tea Commissioner for India.

To THE SECRETARY,

United Planters' Association of Southern India,

25, South Parade, Bangalore.

Dated the 7th December 1917.

Sir,—I have the honour to acknowledge with many thanks the receipt of your letter of the 3rd instant. You will since have received my telegram No. 141-144 dated 3rd instant, cancelling my notification calling for statistics, as well as the communique giving details of the Food Controller's scheme as finally settled upon, forwarded with my memo No. 186TC-197TC dated the 3rd December, 1917. I exceedingly regret having given you so much unnecessary trouble in regard to the collection of statistics, but I was told to collect statistics to have them in readiness to work out the allotments to estates. The decision of the Food Controller to purchase 40% of the crop of 1917 has greatly simplified matters, as it does away with all need of estimates for new extensions. As you will have observed, I shall now only have to make contracts with the Indian controlled concerns, so shall only require statistics in respect of them and not of Companies controlled in England. In respect of latter, however, I shall require information as to their shipping agents, and the port from which they wish to ship their teas. It is not at all clear from the Secretary of State's cable how the average prices of Indian controlled concerns are to be calculated, especially concerns selling teas in Calcutta, partly in Calcutta and partly in London, in outside markets, and new estates with no pre war averages. I have cabled the Food Controller for instructions on these and other points, and shall issue a revised notification calling for the information required on receipt of his reply. I shall certainly, however, require the following information and your members in charge of Indian controlled estates might perhaps start getting it together in order to have it ready when I call for it.

Acreage under mature tea.

" " immature tea.

Total manufacture of crop—1916.

" " " —1917. (If figures for whole year not available, actuals to end of November and estimate for December would do.)

Amount which estate is prepared to tender up to 40% of production of 1917.

Percentage of each grade of tea manufactured.—1916.

Percentage of each grade of tea manufactured—1916.

" " " " —1917. (If possible).

Total crop sold and market in which sold—1911, 1912, 1913

separately.

Total gross sale proceeds of crop—1911, 1912, 1913 separately.

Average sale proceeds—1911, 1912, 1913 separately.

Total average of the three years (the total of the three averages divided by three).

If the Southern Madras Indian controlled concerns would have these figures ready, it would be a great help. I shall supply a form to be filled in when I receive the Food Controllers instructions.

For the present I have arranged with the Collector of Customs, Madras, that all concerns should be allotted tonnage on the existing percentages based on production and estimates. All tea shipped under these interim arrangements and all private shipments from the 1st November will be deducted from the 40 per cent. to which each estate is entitled and the balance will be supplied in equal monthly instalments.

The Government of Madras have sent me a useful statement showing in respect of each estate acreage under tea 1915-16 and 1916-17 and estimate for 1917-18 as checked by Committee.

Thanking you for your kind assistance.

I have the honour to be
Sir,

Your most obedient servant,

W. M. KENNEDY,

Tea Commissioner for India.

R. B. G. 486/16.

Custom House, Madras,
11th December, 1917.

From

P. ECCLES ESQ., B.A., I.C.S.,

Collector of Customs, Madras.

To THE SECRETARY.

The United Planters' Association, S. India, Bangalore.

Sir,—I have the honour to inform you that all shipments of tea to the United Kingdom should in future be consigned to the Food Controller. Shippers should not insure tea shipped to the Food Controller. The shippers are responsible for putting the tea on board and for the present triplicate bills of lading and triplicate bills of costs must be sent to the Tea Commissioner for India, Block B-3, Clive Buildings, Calcutta, who will negotiate them. The quantity of each grade of tea should be shown on the shipping bills.

These arrangements are temporary pending the settlement of final arrangements.

I have the honour to be, Sir,

Your most obedient servant,

(Signed)
for Collector of Customs.

Mangalore, 26th November 1917.

The Coffee Industry.

To THE SECRETARY OF STATE FOR INDIA,

LONDON.

Sir,—We the undersigned have the honour to confirm the cable as per copy annexed which was despatched on 19th instant by Mr. Hamilton in the name of all of us.

On behalf of the planting community we beg to express a hope that you may be able to approach the Controller of Shipping, and to persuade him to look upon the case of coffee planters as an exceptional one, for their case does differ entirely from that of most agriculturists in India.

The coffee tree is a permanent fruit tree giving all its crop at one season, often as the result of one single shower falling 8 months previously. It is therefore impossible for planters to let their land lie fallow, or to change their crop for one consumable in the country, or one on the list of crops of national importance, as can be done in the case of many annual crops. It is not even possible for them to regulate the output, or to a certain extent the season of maximum output as may be done with some perennial crops. They must take the crop when it comes or lose it.

The matter does not end when the crop is picked. A very large number of labourers are entirely dependent on Coffee Estates for their living, and if the crop cannot be picked *and sold*, no funds will be forthcoming for their living. Many schemes have been put forward to overcome this difficulty but none have proved successful.

Seeing the planters' difficulties local dealers who might purchase half the crop, or at least 40% of the crop, are holding back, and will continue to hold back until the rate accepted will allow them scandalous profits as soon as transport can be again obtained. Planters are thus being forced into the hands of the profiteers. If buyers know that shipping is to be found for 6000 tons in all, they will resume purchases at a comparatively normal rate, in which case the situation may be regarded as equal to that of other industries. If no help is afforded, all coffee planters must suffer to a far greater extent than those engaged in more adjustable professions or trades. In fact it is no exaggeration to say that many will be ruined, as, when once cultivation on an Estate has been allowed to lapse for long, recovery or sale at a reasonable price is impossible.

We who address you carry on the curing and shipping work for the produce of over 100,000 acres out of the total of over 200,000 acres in S. India. We are therefore in a position to know our constituents' circumstances. We are not bankers, though in normal times we give very temporary assistance to those planters who are unable to carry on for a whole season alone; and for this season we are ourselves unable to afford any assistance.

We have been asked by planters to assist them in representing their case, and it is our duty and our pleasure to do what we can in that direction.

Should it be found impossible to carry out our suggestions made here in person to His Excellency the Governor of Madras that tonnage for 3,000 tons each to France and the United Kingdom be granted the only alternative is that the Imperial Government shall undertake to purchase all stocks left on hand in May next at average prices of the last 5 years. Details for a scheme to carry out such purchases can be very easily arranged through the Government of Madras, and will result in no loss to the purchaser.

France, as soon as transport can be arranged at nearly normal rates, will be ready to take over the whole stock at remunerative prices, and in addition if coffee is held until the war is over, other countries will also require a proportion of the Indian crop expected, which is, this year, so small that at another time it might be found insufficient for the demand in Europe and the East.

We have the honour to be,

Sir,

Your most obedient servants,

MORGAN & SON,
PEIRCE, LESLIE & CO., LTD.,
VOLKART BROS.,
A. J. SALDANHA & SONS,

P. F. H. SALDANHA & SONS,
NOWROJEE,
VENKATRAO.

Ootacamund,

29th August, 1917.

THE CHAIRMAN,

United Planters' Association of Southern India,

Devarshola P. O.

The Re-organization of the Labour Department.

Dear Sir,—I should like to put before you formally the suggestion I made at the Control Committee meeting on 25th instant so that, if it meets with the approval of yourself and the Committee, it may be circulated to District Associations for consideration.

At the General Meeting, Mr. Lake brought forward a resolution which was carried:—

“That the Director, Deputy Director and Control Committee with power to add to their number be asked to prepare a scheme of reorganization of the Labour Department on a basis of a subscription of approximately Re. 1 per acre.”

Mr. Lake in speaking to his resolution said that the doing away with the Labour Department after its five years trial was not to be thought of and it is gratifying that other gentlemen spoke in the same strain, but I do not think that his suggestion, if looked at from the Labour Department point of view only, will be found practicable, nor do I think his reasoning that the coffee planter is not getting his money's worth was quite correct.

If the needs of the different districts are considered separately the labour question as it affects the whole of S. India cannot be looked at properly. If any organization is going to do any good the matter must be looked at as a whole and any piecemeal arrangements will be a partial reversion to our position before the Department came into existence.

Naturally the heaviest expenditure must be incurred where the competition with outside recruiters is keenest, but that expenditure must be looked on as incurred for all of us whether we recruit in the heavy competition area or not. If in any recruiting district we are beaten by Ceylon and Malaya we shall be forced into other districts and so increase the competition in those. If we lose any preponderance in the Southern districts of the Presidency the conditions in S. Canara will become worse than they are at present.

When the Labour Department was started the claim for a reduced subscription for coffee was carefully considered and it was rejected, I think quite rightly so at that time for it was found that our needs were indetical. I still think our need for self protection is the same for all of us though we may not realise it. Possibly after the war is over the clamour for labour will be greater than we have known it and that we shall have greater need for organization to control and safeguard our interests. I believe the time cannot be far distant when the Madras Government will have to take a hand in regulating recruiting and the stronger and more wealthy our organization is the more likely we are to make our voice heard and get our wants attended to.

At the present moment the weakness of the Department is that it is not fully representative of our S. Indian interests and that has been the chief trouble it has had to contend with since its inception.

Another resolution which was before the meeting and which involved self taxation was Mr. Murphy's proposal for a Mycologist for rubber only, the cost of whom the Mundakayam Association was prepared to meet by itself.

If it can be avoided I do not think we should have separately subscribed to departments of the Association. The Scientific Department did start on those lines and the administration of it was somewhat chaotic until it became part of the Association itself, actually as well as in name. One District Association stood entirely aloof from it while it was on a voluntary basis, but as soon as that changed gave it its full support.

The Labour Department is almost an analogy though in this case it is a question of individuals rather than districts for I believe, no one district, supports it with its full acreage.

I think the debate initiated by Mr. Lake's resolution showed that the honest criticism of the department demanded increased efficiency with a fairer incidence of cost and surely if we sit down and worry the matter out with those objects in view they can be brought about, but I do not think this can be done by the Labour Department itself, but only by the Association as a whole.

Taking Mr. Lake's resolution and Mr. Murphy's resolution side by side as a text, I would put forward my suggestion.

I say again that I think detached departments of the Association are a mistake if they can be avoided, and to do away with them I propose a comprehensive subscription.

The activities of the Association including the Labour Department, the reorganized Scheme and the proposed Rubber Mycologist would come to about Rs. 2½ lakhs annually. The acreage subscribing to the Association is about 165,000 so a subscription of a little over 1-8-0 per acre would cover it. At the Control Committee meeting rough figures were taken out and it was thought that an annual subscription of 1-12-0 per acre from tea and rubber and 1-4-0 per acre from coffee and other products would give us just a little more than the required amount.

It would be a close thing and there would be very little over and certainly not enough wherewith to extend our activities. But some economies could be effected perhaps, and we could look to increasing acreage of membership to meet our further needs.

This suggestion then is not for the reorganization of the Labour Department but for the reorganization of the Association itself and the subscription paid would not be for any specified purpose, labour, science, and the like but as subscription to the General Funds of the Association to enable it to help us as we most want to be helped.

Mr. Lake's suggestion was for Re. 1 per acre coffee subscription for labour only, and he anticipated an increase of subscribers on that basis; the present proposal only fails to meet him by two annas; the reduction to tea planters is 6 annas per acre while in regard to rubber planters I understand from Mr. Murphy that some at any rate were prepared to pay Rs. 2 per acre for a rubber Mycologist and also a further 8 annas for labour.

I hope I have said enough to ensure the suggestion receiving consideration.

Yours faithfully,

(Sd.) E. F. BARBER.

Neumeny Estate,
Mundakayam P. O.,
Travancore,
S. India.

6th December, 1917.

THE EDITOR,

Planters' Chronicle.

Re-Organisation of the Labour Department.

Dear Sir,—Since Mr. Lake's resolution on this subject which was adopted in August last, letters from Mr. Murphy, Mr. Hunt, and Mr. Kirk, dealing with it have appeared in your columns at different periods, but I, and I expect many others, have been greatly disappointed in noticing that the resolution has not been given effect to. From August to the end of November has surely been sufficient time for the Director, Deputy Director and Control Committee, either to have formulated the scheme on the basis laid down of Re. 1 per acre or to have discovered that it is not possible to do so.

There are other schemes and suggestions such as the employment of a Mycologist, the Re-organisation of the U. P. A. S. I., and the formation of a London Branch of the U. P. A. S. I., now before us, and awaiting decision and adoption, and which cannot very well be outlined clearly and in detail because no one has as yet any idea of what the cost of the Labour Department is to be in future, nor can any one judge as to whether the reorganised and cheapened Labour Department will be acceptable to those individuals who at present stand aloof from it.

It is well known that a comprehensive cess to cover the whole of the expenditure necessary for the schemes and suggestions given above, as well as to cover the cost of the Labour Department, has been suggested. It is also probably true that a large majority of the Planters in South India believe that the reorganisation of the U.P.A.S.I., and the formation of a London Branch, etc., is a necessity and to be desired, but that this is not so in the case of the Labour Department must be admitted if the criticisms of it that occurred at the U. P. A. S. I. are to be taken as a criterion. In a new scheme with a comprehensive cess, therefore, and I know I am speaking for a large majority of Rubber Planters, the Labour Department is the bone of contention, and, until we can get from the controllers of it, a reasonably cheap scheme which would be acceptable to all the planting industry, the ideas for the more efficient working of the U. P. A. S. I. and which will embody other suggestions for other departments, must be held up.

I would therefore urge that the question of the re-organisation of the Labour Department be immediately dealt with, giving effect to Mr. Lake's resolution, and, after discussion of it, steps can be taken to deal with the other questions now awaiting decision.

I may be wrong, but I think that, unless the cost of the Labour Department can be very considerably reduced, and its efficiency considerably increased, no rubber estates from the Native States will join the Labour Department, or help to pay for any scheme which includes it.

To obtain the support of rubber in Native States, it is the duty of the Labour Department to show Rubber Estate Superintendents how they will derive as much advantage from the Department as those who are fortunate enough to be planting in British India.

Yours faithfully,
J. R. VINCENT.

Cowcoody, Somwarpet P. O.,

N. Coorg, Dec. 6, 1917.

THE EDITOR,

The Planters' Chronicle.

Dear Sir,—One effect of the proposed reconstruction of the U. P. A. S. I., if carried out, would be to compel every member of an Association to be also a member of the Labour Commission. The main activities of the L. C. are twofold :

I. To co-ordinate all labour questions and raise the moral tone of the labourer and in some cases, of his employer.

II. To round up defaulters and to open up new sources of labour and secure 'fresh connections' for its subscribers.

No. I costs very little. No. II a very great deal. Why should a man who can and does subscribe to No. I be made to pay heavily for No. II, which he does not want ?

An attempt has been made to show that it is a matter of public spirit to join the L. C. and also that men who do not join reap the benefits without paying the cost, in other words that they are both mean and unpatriotic. But if there ever was a thing called into being for a special object, to suit special though numerous cases, it is this. Most Associations came into being many years before the L. C. and have many other activities. For instance, if a scientist is worth his salt and does original work, the small cess demanded is worth while, even if it is for another district or product. Similarly a small cess for pushing and advertising coffee would benefit all coffee planters. But the thing to be feared is that the lean kine of the L. C. will swallow up the fat kine of all the other activities of Associations. I am assuming (reasonably considering the past expenditure of the L. C.) that by far the greater part of the Rs. 1-4 proposed for coffee will go to that.

The questions of crimping, previous advances, rates and so on have been and are settled by the Associations and the right feeling of their members. This costs practically no money at all and moreover the L. C. has no more power to settle these questions than the local Associations. A good deal is to be said for making a L. C. compulsory on all landowners in S. India but that we shall never get. I would suggest that men might become honorary members of the L. C. and pay, say, 2 as. per acre, on condition that they make no use of the commission or its agents. If labour troubles came on then they could then join and subscribe in the usual way. But never say "wait a few years, look at Ceylon, etc., etc." Personally, I do not see a shining example by looking at Ceylon and its labour condition. Also it is not the Englishman's (or must it be Britishman's ?) way to spend large sums and take elaborate precautions for what may or may not eventuate.

To put the matter in a nutshell. Why in reason should a man who owing to bad times has had himself to turn away much good labour, be made to subscribe heavily to help estates which (through bad luck or bad management) have a large defaulter's list, or else to help companies which (either through prosperity or having a dip in the bottomless purse of the great B. P.) require constantly fresh labour and "connections" thus increasing the alleged labour shortage ?

No. Let those who called the L. C. into being, those whom it serves well, continue to subscribe as formerly and not come down on their poorer neighbours to improve their annual budgets. Of course, as Mr. Hunt suggests, it is always open to these to resign their Associations, but that is a consummation not to be wished.

Yours faithfully,

L. NEWCOME.

Terramia Estate,

Kullakamby,

Nilgiris.

THE EDITOR,

The Planters' Chronicle.

The proposed Re-organisation of the U. P. A. S. I.

Sir,—I have read the correspondence on this subject with great interest, but what strikes me is the fact that some people do not seem to realise with what subject the re-organisation is proposed.

I may be wrong but I take it that the Reforms are intended to meet the situation as it will be, not as it is now.

If Planting conditions were to remain as they are now, possibly the drastic changes advocated might not be absolutely necessary but are things going to remain stationary.

Most certainly they are not, and consequently we must regard the *future* aspect and not the *present*.

Mr. Hunt considers that the Labour Department is a failure because it has only recovered Rs. 30,000 against an expenditure of Rs. 200,000. Personally I consider that the fact that it has recovered so much is a strong point in its favour as it shows that a real good start has been made in checking the increasing practice of Coolies or Maistries taking advances from several estates, a practice which by its success was developing into a very catching and dangerous disease.

Many Planters do not *now* perhaps need the actual aid of the Department, but the time will come when every employer of Labour will be more or less directly affected, and woe betide the Planting Industry then if we have not an efficient organisation to fight our battles for us.

The bigger, the more comprehensive, the wealthier our Association is, the more weight it will carry on any point, be it Labour, Scientific, or Commercial, it may take up on a member's behalf.

A member of the N. P. A. told me a few days ago that he had supported the Labour Department from its birth; he had never written or had any dealings with it beyond paying his subscription; he worked with Local Labour entirely and had more than he wanted, but he intended supporting the new scheme as he considered that Unity among Planters on all essential points *must* be achieved at almost any cost, and I am sure that if everyone will take the trouble to consider what bearing the present general situation must inevitably have on the future, he will agree with the views of the man I have just referred to, and if that is accepted, the "case, is won and only the damages" remain to be assessed.

A difficult problem for the "Jury" I grant, but if one considers what one stands to gain by absolute representation on every point that concerns us, and what one stands to lose by want of Unity, surely the Anamallai proposals seem very reasonable.

Your faithfully,

A. S. DANDISON,

The Mooply Valley Rubber Company, Limited,
Palapilly P. O., S. India,
December 12th, 1917.

TO THE EDITOR,
The Planters' Chronicle.

Re-organisation of the U. P. A. S. I.

Sir,—Now that this matter is under consideration and opinions are invited, I claim the hospitality of your columns to air my views.

LABOUR DEPARTMENT,—It has always been laid down that this must be part and parcel of the U. P. A. S. I. (which it can never be as long as there are non-subscribers.) I cannot see why this should be so and considering the divergence of opinion as to the merits of the Department, it is a danger to the unity of the Association as things stand.

To meet the case, it has been suggested that one subscription should be levied to cover everything.

I think the only objection to this will be found to be that a considerable acreage will be lost to the Association.

The only evidence I can bring on this point is (1) Mr. Hunt's letter (2) Two of my directors strongly object to the idea as at present (3) The Managing Director of a large rubber group wishes to join the W. C. P. A. but will withdraw his acreage if the present scheme goes through.

I contend that these are straws showing which way the wind blows. I have certainly not canvassed for unfavourable votes and have an open mind in the matter.

Personally, I believe the safest course would be to absolutely sever the connection between the U. P. A. S. I. and the Department, but if there are valid reasons why they should be associated, I would suggest a compromise which might prove acceptable to all. This is, that the Department should become fundamentally part of the Association and as such subscription to it by all estates should become compulsory. The subscription would necessarily have to be low, say four annas an acre. As this would be insufficient to run the Department (at any rate on present lines), the Department should have a scale of charges for the work it actually does. After all our Scientific Department does not analyse soils or manures without charging a fee.

I agree with Mr. Hunt that a coffee man should not have to pay a penny towards the cost of a rubber mycologist. This should surely be met by a compulsory cess on the rubber acreage.

The advantages of my suggestion are as I see them:

(1). It does away once and for all with the most serious bone of contention in the U. P. A. S. I.

(2). It would probably increase the subscribing acreage.

(3). It has the merit of being fair to all estates.

Finally I wish to clearly state that this letter is not intended as an attack on the Labour Department which may be exceedingly useful to certain subscribers, but is an attempt to make the P. A. united in more than name.

I rather agree with Mr. J. A. Richardson's remarks at the C. T. P. A. meeting as to the Planting Public being prone to criticise and failing in gratitude towards the leading men of the U. P. A. S. I. who spend their time and money in the interests of the S. Indian Planting world.

I am yours, etc.,

A. H. MEAD.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 51.]

DECEMBER 22, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Secretary, U. P. A., returned from Madras on the 20th instant having met the Chairman, who has kindly undertaken the onerous, but unenviable, duty of arranging the Exhibits, practically single-handed. Nearly a hundred cases had arrived.

The Deputy Director of Agriculture, Planting Districts, has left for Hoobli on ten days' holiday. Letters will be forwarded to him from this Office.

Our usual weekly report on Markets, Prices and Statistics appears.

Notice is drawn to the Press communique on page 651.

The Director, Labour Department, continues his articles, which this week deals with the Civil Court process for the recovery of money from defaulters.

A copy of a telegram from the Secretary, Madras Revenue Department, is published and has been circulated by the Secretary.

We publish a tour of a Presidency Senior Chaplain. It will be remembered by many that he attended the last annual meeting.

A telegram from Foodministers, London, to the Indian Tea Commissioner is published, which should be studied by Tea Planters.

Our correspondence columns contain letters from the Indian Tea Commissioner to the Secretary, Indian Tea Association, and a series of letters from some of those gentlemen named at the annual meeting according to resolution XV, and from Mr. Brooke Mockett. One from Mr. Hayward on the re-organisation of the U.P.A.S.I., and two letters on Circulars.

One letter important to Coffee Planters from the Secretary to the Madras Government received too late to-day to appear in this issue is being circulated to District Associations. Immediate information is called for.

SOUTH INDIA PLANTERS' WAR FUND.

			Rs.	A.	P.
Amount previously acknowledged	...	...	67,768	8	2
Mr. J. J. Murphy	...	...	100	0	0
Mr. H. Waddington	...	...	30	0	0
Messrs. Barber & Pascoe	...	...	75	0	0

Total Rs... 67,973 8 2

MARKET 3, PRICES, AND STATISTICS.**Coffee.**Monthly Statistics to 31st² October.

			1917	1916
			tons.	tons.
EAST INDIAN—				
Landed to 31st October	...	...	3,208	2,162
Delivered to 31st October	...	...	1,648	2,491
Stock on 31st October	...	...	2,327	1,057
COFFEE OF ALL KINDS—				
Stock in United Kingdom on 31st October	...	...	47,000	39,750
Total European Imports to 31st October	...	...	164,540	309,755
Total European Deliveries to 31st October	...	...	218,295	285,220
Total European Stock on 31st October	...	...	171,705	230,650
Worlds visible supply on 31st October	...	...	628,703*	622,235

* An increase of 31,590 tons compared with an increase of 47,645 tons last year.

Offerings at auction have been :—

		9th Oct.—2nd Nov.	Since 1st Jan.	Last year.
East India	...	3,419	40,468	28,241
Costa Rica	...	220	75,812	95,635
Other Milds	...	2,877	52,261	73,935
Brazil	...	6,588	81,428	103,266
Robusta	...	34	745	1,453
B. E. A.	...	86	5,057	16,580
Uganda	...	209	11,695	

Messrs. T. H. Allan & Co., in their Weekly Report dated 6th November say, "The market has been very firm for all kinds but the reduced supplies of home trade qualities and the restrictions on retail prices have forced buyers more and more to lower classes with the result that a very large business has been done in Santos at prices showing about 10/ to 12/ rise in the course of five or six weeks. A small parcel of East African the first arrival for four months, realised very high prices, No. 1, 114/; No. 2, 112/6; No. 3, 104/6; PB. 144/,—"

According to the *Weekly Report of the Mysore Chamber of Commerce* dated 17th December the following are the Local prices of Coffee, per maund of 26½ lbs., Peaberry, Rs. 11 to Rs. 12. Parchment, Rs. 9 to Rs. 9/8. Native, Rs. 6 to Rs. 8/9. Chickmagalur quotes per maund of 28 lbs., Peaberry, Rs. 10/8 to Rs. 11½, Native, Rs. 7-4 to Rs. 8.

The Government of India have decided to prohibit the importation of all Coffee into India but this does not apply to Aden.

A Mangalore Coffee Circular dated 15th December states as follows: "Native continues to be utterly neglected and parchment is in fairly steady demand. December to January gets 41 or might get more if good. Old crop parchment could be sold if on the spot but in the case of this buyers want to see samples. List of sales, 90 candies of native at Rs. 168 per candy and 9 tons of plantation at Rs. 41 per cwt."

Tea.

Messrs. T. R. Allan & Co. in their Weekly Report dated 6th November say :—"Supplies this week are considerably larger than for some time. In auction on 5th November all controlled teas except the very commonest parcels met with a good demand at top prices but free teas were a little irregular."

Rubber.

The following are the statistics of Rubber in the United Kingdom for July to September, in tons.

			1917.	1916.	1915.
IMPORTS—					
July	...	...	7,081	5,109	4,559
August	...	...	4,315	5,710	5,265
September	...	...	4,702	7,458	5,109
EXPORTS—					
July	...	...	3,368	3,216	5,538
August	...	...	3,763	3,600	4,255
September	...	...	2,035	2,936	4,324

Spices.

PEPPER.—Home market quiet but firm, fair Tellicherry 1/4. Local prices according to the Mysore Chamber of Commerce are as follows, Rs. 12/8 to Rs. 13 per maund of 25 lbs. Saklespur quotes Rs. 12/8 to Rs. 13 per maund.

CARDAMOMS.—There are occasional enquiries for better grades at home which generally lead to nothing owing to the difficulty of getting permits. Local prices are as follows :—Rs. 20 to Rs. 25 per 25 lbs. Saklespur quotes Rs. 18 to Rs. 20 per maund.

R. D. A.

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE AND INDUSTRY.

Delhi, the 4th December, 1917.

Press Communiqué.

The scheme of purchase in India and in Ceylon by His Majesty's Government of the United Kingdom's requirements of tea, which was foreshadowed in the Commerce and Industry Department's Press Communiqué of the 20th November, has now been definitely settled. Contracts will be made by the Food Controller with companies controlled in the United Kingdom, and by the Tea Commissioner in Calcutta with producers who are not represented in the United Kingdom, for approximately 40 per cent. of the normal crop, for shipment between 1st November, 1917 and 31st May, 1918. Prices will be fixed *f.o.b.* Indian ports on the basis of the average prices realised by individual estates at London auctions during the three years 1911, 1912 and 1913, less nine-tenths of a penny per pound for freight, tea cess, and other intermediate charges *plus* an allowance (fixed for the present at one-half penny) for increased cost of production. Export duty and tea-cess will be paid by the Food Controller. In order to secure prompt utilisation of freight, there will be no interference with tea already in course of shipment, but all tea shipped on private account to the United Kingdom on or after the 1st November will be acquired by the Food Controller and paid for on the above basis.

LABOUR DEPARTMENT.

Considering that justice in the abstract is always to be obtained in the Civil Courts in India, it is extraordinary how weak is the hand of the law in these cases. All our suits being honest, we get a decree in our favour as a matter of course. The trouble then begins. The Aliya Santhana law in S. Canara, the Marumakkatayam law in Malabar, and the Tamil Hindu joint family system, are excellent in theory as they prevent the breaking up of property into fritters. In practice they are often used as a screen by fraudulent debtors. Even when a defaulter is not governed by this personal law, the procedure subsequent to obtaining a decree, all seems to be designed to favour fraud. After practical experience of dealing with Civil debtors, one is forced to concede that the rates of interest charged by Money lenders in this country are perfectly justified, especially as borrowers are willing to pay back the capital amount many times over by way of interest spread over a long period, rather than repay it in a lump sum and have done with it. Those that pay, cover the debts of those that do not pay, a disadvantage not unknown in other branches of business, the Labour Department included. A decree in the Civil Courts of Native States takes from 3 months to 2 years to obtain. The decree will then after some delay be transferred to the Court in British India under whose jurisdiction the defaulter resides. Here a further delay is usually met with as a process server may not be available. Having obtained a warrant and a process server, the latter proceeds to the man's house, which he may not enter, and then it is quite on the cards, that having got wind of the warrant the defaulter has already slipped across the boundary into the jurisdiction of the next Court where he cannot be caught. The warrant which is usually current for only 3 days is returned to the Court of issue, and nothing can be done as long as the man keeps out of that Court's jurisdiction. It is possible of course to have the decree transferred to the court under whose jurisdiction the man has temporarily gone, but this also takes time, and our defaulter has only to slip back over the boundary to evade it, and so the game goes on.

Having got tired of this game of "Tom Tiddlers ground" the defaulter may then put in an insolvency petition, and comes under the protection of the court which has lately been issuing warrants for his arrest. Presuming our defaulter is caught in the first instance, and will not pay his debt, he may be sent to a Civil jail for the maximum of 6 months at the decree holder's expense. Here he has nothing to do, is well fed, and walks out without a stain on his character. This refers to a man who has no property which can be attached, or whose property is governed by the laws above mentioned, whereby the property is owned jointly by the whole family, and cannot be divided to pay the debt of any individual member of that family. Our only hope in such a case is that the other members of the family may come to his rescue and pay his debt rather than let him go to jail. We have had cases in which a man has been sent to jail by a Criminal Court, and his family members have failed to come forward and pay his debt. It is obviously useless and a waste of money to take subsequent civil proceedings against the man, who will cheerfully go to a civil jail at his creditor's expense. The civil jail has no terrors for a man who has done three month's imprisonment in a criminal jail, and his relations will certainly not offer to pay up his debt to save him from it.

Reverting to the case with which a man may evade arrest on a civil warrant, a case in point is a defaulter to the tune of Rs. 900 to an estate in

a Native State. This man lives on the boundary of two jurisdictions, and has literally only to walk out of his back door to evade a warrant coming in at the front, and *vice versa*. As his property is "joint family" it cannot be attached to pay his debt.

It would be some help if civil warrants were of long validity and their operation ubiquitous. If this were so, 50% of the civil cases which are now congesting the Labour Department books would be disposed of within 6 months.

Presuming a defaulter has property in his own name which is not already mortgaged up to the hilt, this can be attached after due notice has been served on him. It may take anything up to 2 years to attach and auction his property, and this only after endless trouble. A defaulter, however, is not going to take things lying down, he will lay himself out to give his creditor the maximum amount of trouble. A common dodge is to transfer or sell his property. This means a fresh suit with all its accompanying delays to upset the transfer or sale of property. Having at last got the property auctioned, it probably fetches less than the amount of the original debt.

Under these circumstances it is often to the advantage of subscribers to agree to a compromise which the Department always desires to try to arrange when it is found that a civil suit, if pressed, is likely to lead to less money being obtained for the subscriber concerned.

I have exceeded my space limit already, so I must defer till next week a few examples of the result of civil suits.

AYLMER Ff. MARTIN,
Director.

COPY OF A TELEGRAM RECEIVED FROM THE SECRETARY, MADRAS
REVENUE DEPARTMENT.

Madras, 20-12-17.

Secretary, U. P. A. S. I.,
Bangalore.

"721 following telegram received from tea commissioner. Exchange banks here say that Madras banks must take Madras tea bills and such bills should accordingly be presented to Madras exchange bank. I agree to flat rate of six pence or six annas per pound for tea shipped by cheviot range pending arrangement of flat rate per district. For present and pending final orders of Government estates or agents should themselves draw bills of exchange on financial Secretary Ministry of food at four months sight with documents attached charging brokerage stamp duty and other charges in bill. Before drawal of bills invoices of cost charges etc., must be countersigned by collector of customs and three spare copies of documents beyond these required to be attached to bills should be forwarded to Eccles one copy for retention by him and two copies to be forwarded to me, one for food controller and one for my office. Please communicate to all concerned.—*Madras Revenue.*"

TOUR OF PRESIDENCY SENIOR CHAPLAIN

Tours are in many cases the only way of getting into personal touch with our countrymen in outlying districts, but they are not always easy to arrange, and the shortage on our staff has made them specially difficult in recent years. It was therefore a great pleasure when it was found possible (leaving the congregational work of St. Andrew's in the very capable hands of Mr. Meston for a period including the Michaelmas Recess) to carry out with Mr. Heron's approval and the sanction of the Government of Madras a tour in Travancore which had been projected for some time.

My wife and I left Madras on the evening of 13th September, and arrived next day without incident at Ernakulam, the railway terminus for Cochin. Through the kindness of Mr. Braidwood, the British Resident, Bolghatty Residency was placed at our disposal during our stay in the neighbourhood. Cochin has many interests. Industrially as well as from the point of view of natural scenery the cocoanut palm is everywhere in evidence: commercially the opening of the bar is contemplated and if completed is expected to make Cochin a place of great importance: racially the communities of so-called "White" and "Black" Jews are best known, though there are other racial questions of interest: medically, the most obvious need is the discovery of a preventive for elephantiasis, sufferers from this distressing affliction being reported to number two out of five of the adult population: architecturally many buildings recall Portuguese and Dutch occupation. Ecclesiastically the Church of St. Francis is interesting as having been used by both these nations, and tomb-stones of both are now upon the walls as mural tablets. Through the kindness of the Rev. B. I. Morgan, C. M. S. Chaplain, I preached at the Evening Service on 16th September, and both on that and the following day we had the pleasure of meeting Scottish and other residents in British Cochin. A visit was also paid to the Rajah of Cochin and his Consort at the palace, seven miles from Ernakulam.

On 18th September we proceeded by steamer along the celebrated Backwaters to Aleppey and Kottayam, staying the night in the latter place at Bishop's House as the guests of Bishop and Mrs. Gill. We had known them a good many years ago, in Allahabad, and it was pleasant to renew our acquaintance with them. Bishop Gill had kindly written in advance regarding the use for our services of the Church of England churches in Mundakayam, Peermade, and Vandiperiyar.

We were motored next day, 19th September, from Kottayam to Mundakavam Travellers' Bungalow, thirty-three miles, by Mr. Eric Hall, Churuvally, and were thence conveyed to the bungalow of Mr. W. Hendry, Mundakayam, with whom we stayed till the 24th. During our stay with him we visited Mr. and Mrs. Ed. Vincent, Boyce Estate, and met various neighbouring planters at Mr. Hendry's bungalow. Service was held in Mundakayam Church on the 23rd. I was asked to give an address at the Indian service, held immediately after the English one, and did so, speaking through an interpreter. On the 24th and 25th we stayed with Mr. and Mrs. Harley, Kadamankolam; on the 26th with Mr. and Mrs. Hamond, Kuppukayam; and on the 27th with Mr. and Mrs. Kirk, Peravanthanam. Their estates are all within the Mundakayam District, and on the 28th we were motored by Dr. McCormick to his bungalow at Peermade. The weather was against much going about—fourteen inches of rain fell in three days—but we were the guests successively of Mr. and Mrs. Westaway, Stagbrook; Mr. and Mrs. Stephen, Ashley, and Mr. Wilkie, Glenmary; and on Sunday, the 30th, there was a fair congregation in Peermade Church in spite of the weather. On 4th October we journeyed to the bungalow of Mr. and Mrs. Lacey, Mungamallai, Vandiperiyar, to the east of Peermade, on the 6th a few miles farther to Mr.

and Mrs. Kinmond, The Mount; and on the 9th to Mr. and Mrs. McArthur, Tunga Mallai. Service was held on the 7th in Vandiperiyar Church, close to the Mount bungalow.

This completed the earlier portion of the tour and on 11th October we started for the High Range. Our journey, of about fifty-eight miles in all, took us by motor out of Travancore, into the low country of Madura, and along to Bodinayakanur, where we spent the night at the Planters' Bungalow. Next morning, we had a further ten miles to Bottom Station by motor, rode seven miles up the ghat to Top Station (where we were met by Mr. and Mrs. J. C. Swayne, Ellapatti, and hospitably entertained at Headquarters Bungalow), journeyed in the Kanan Devan Tramway twenty-four miles to Munaar and then three miles in side-cars to Kaniyamallai Estate, where we were the guests of Mr. and Mrs. A. J. Wright for five nights. Afterwards we had three nights with Mr. and Mrs. W. A. Lee at Madupatty, two with Mr. and Mrs. Blair Hall at Munaar, six with Mr. and Mrs. H. L. Pinches at the General Manager's Bungalow at Madupatty, and one with Mr. and Mrs. Abbott at Talliyar. Services were held in Munaar Church on each of the three Sundays, 14th, 21st and 28th October. On the 14th and 28th the S. P. M. R. had Church Parade, and the numbers, over fifty in each case, were much the largest during the tour. On the 21st the congregation, though smaller, was still considerable, and on the afternoon of that day I repeated the Mundakayam experience of addressing the Indian congregation through an interpreter.

When the tour was under consideration the suggestion was made that a halt for a day or two, going or coming, should be made at Coimbatore, and arrangements were made to stay there on the return journey. Talliyar is fourteen miles from Munaar on the Northern Outlet road, and on 29th October we were motored *via* Pollachi, seventy-nine miles. We stayed for two nights with Mr. and Mrs. McRae, Government Agricultural College, and were also entertained on the evening of our departure by Mr. W. J. Campbell of Messrs. Peirce, Leslie & Co. Service was held in the Church Hall, Coimbatore, and there were two baptisms. We left Coimbatore on 31st October and arrived in Madras the following night.

The tour throughout was of the greatest interest. We had seen a good deal of tea before, in Assam and to a less extent near Darjeeling, but the differences in climate, growth, and surroundings, with the corresponding differences in cultivation, made much even of the tea-planting new to us. Rubber-planting we saw for the first time in Mundakayam. Coffee was also new, and the plantations of chinchona, sisal, and cardamoms all had interest of their own. The special interest however was of course to be found in the residents, and the thoughtful kindness of one and all is never to be forgotten: one only wishes that as a church we could do more for our scattered brethren. Suggestions as to the possibility of doing this will be most gratefully received.

Collections in aid of the Hospital Ship "Madras," to be added to the proceeds of the Woman's Guild Sale on 1st December, were taken at most of the services, and including additional sums sent afterwards were as follows:—

		Rs.	A.	P.
23rd September, Mundakayam	...	67	9	8
30th " " Peermade	...	112	0	0
7th October Vandiperiyar	...	70	10	0
14th " " Munaar	...	122	7	6
30th " " Coimbatore	...	100	0	0
Total	...	472	11	2

D. H. G.

TEA

Copy of telegram from FOODMINDERS, London, to the Tea Commissioner for India, Calcutta.

Tea Purchase scheme the main scheme has now been accepted by both the Indian and Ceylon Tea Associations. Your telegrams dated 5th and 6th December. In cases of concerns controlled in India, prices will be Calcutta auctions 1911, 1912, 1913 less sale expenses and other Calcutta charges, plus halfpenny or three farthings, if ultimately decided, for excess cost of production. In case of similar concerns selling in London as stated in your telegram, sellers to put on board. In cases of concerns selling partly London partly Calcutta, take average sale price of both markets with necessary adjustments. In cases of concerns selling crops or portion thereof outside Calcutta or London markets or new concerns with no pre-war sales, you will arrange price to be paid in these special cases according to value of tea. Food Controller will pay for teas in transit as on and from 1st November till Government shipments begin. Teas purchased in Calcutta market and shipped United Kingdom from 1st November have been bought by Food Controller at halfpenny profit C. I. F. Ask Government of India to allow shipment of teas bought and paid for on or before 26th November, including teas purchased in auction 20th November, up to quantity that could have been shipped under licenses issued with validity up to 22nd February next. Food Controller has made arrangement to buy same halfpenny profit on F.O.B. cost Indian ports. It is essential that you should arrange that every grade should be examined by your experts and that they should satisfy themselves that same is up to standard quality, and you should arrange with each garden to have samples of each grade sent you seven days before the arrival of the teas at port of shipment. If quality is below standard of manufacture of garden in previous year, accept same, but in case of Indian controlled gardens you arrange reduction in price; in case of London controlled gardens advise Food Controller who will arrange reduction. Garden weights are to be accepted meanwhile, but final payment will be made here on customs weights. As regards shipments from Chittagong and Madras ports suggest that if your experts pass the forward muster samples as being of average quality from estates shipping from Chittagong and Madras, bulk could be shipped until further arrangements for examination can be made by you at the two ports. All tea will be inspected here and claims made for inferior quality or defective packing. Start buying on 40 per cent. basis even though 1917 crop is approximately three hundred and seventy three millions. Accept 1916 crop as part of 40 per cent., provided these teas are shipped immediately. Price for 1916 crop will be arranged here in consultation with London owners, but you should arrange reduced price with Indian owners. Hope get 26,000 tons from India for December Government shipments will not be insured. Cable immediately quantity of civilian tea shipped since November 1st and also names of ships that cleared from an Indian port on or after November 1st containing Indian tea. Instructions are being sent to the Secretaries of the Liner Conferences at all tea ports authorising them to ship teas on Government account. Freight will be paid by the Ministry of Food on arrival of steamers in the United Kingdom. It is essential that there should be no hiatus in shipments and that tonnage space provided is fully utilised.—*Foodminders.*

Memo No. 417 T. C.—423 T. C. dated the 11th December, 1917. Copy forwarded to the Secretary, United Planters' Association, Bangalore, for information.

W. M. KENNEDY, Tea Commissioner for India,

CORRESPONDENCE.**Copy of a letter from Indian Tea Commissioner to Secretary, Indian Tea Association.**

Dated the 17th December, 1917.

Sir,—At a Conference held on the 15th instant with the Controller of Currency, Messrs. A. D. Gordon and R. Graham, Members of my Advisory Committee, the Collector of Customs and the Managers of the Chartered Bank of India, Australia and China, and the National Bank, the question of the drawal of Bills of Exchange on account of tea purchased by the Food Controller was discussed. The present arrangement is that such bills should be drawn by me and that I should pay the proceeds to shippers of teas. On the representation, however, of the Controller of Currency that it would be more convenient for all concerned if the Bills of Exchange were drawn by shipping firms etc. the Conference agreed that this course should be recommended to the Government of India, Messrs. Gordon and Graham stipulating that Government should give an undertaking that the Bills would be taken by the Exchange Banks without delay, and that shippers should be entitled to charge in their bills on the Food Controller the cost of brokerage, stamp duty and other expenses in connection with the drawal of the Bills of Exchange. It was also decided to revert at once to the former arrangement by which tea cost and export duty were paid by shippers, latter recovering such sums in their bills on the Food Controller.

2. As regards private concerns which have no regular Agents, and which may find it difficult to draw Bills of Exchange on the Food Controller in payment for their teas, it was agreed that, if they can satisfy me that they cannot arrange to draw the Bills, latter should be drawn by me, and the proceeds paid to the shippers.

3. I shall be glad if you will inform your members that Bills of Exchange at four months sight with documents attached in payment for teas shipped by the s. s. "Mandala" may as a temporary measure be drawn on the Financial Secretary, Ministry of Food by shipping firms under these arrangements charging brokerage, stamp duty, etc., in their bills. All invoices for cost and charges of all tea shipped must be certified by me before the Bills of Exchange are negotiated, in addition to the copies of the documents required to be attached to the Bills of Exchange two additional copies of the invoices of cost and charges and of the garden invoices should be forwarded to this office, one to be submitted to the Food Controller and one for record in my office.

Bills of Exchange should be drawn on the Financial Secretary to the Ministry of Food at four months sight. The local area in which the estate is situated (i.e., Assam, Duars, etc.) should be entered in the invoices forwarded to undersigned for counter signature.

W. M. KENNEDY,
Tea Commissioner for India.

2, Palace Green, Kensington, W. B.,
London 29th October, 1917.

South Indian Planting Association.

FLETCHER NORTON ESQ.,

Secretary, U. P. A. S. I., 25, South Parade, Bangalore.

Dear Sir,—I received your letter of 8th September this morning with copy of Mr. Richardson's memorandum. Mr. Pinckney showed me the circular and letter on the 17th instant and on the following day we held a

small meeting at the Oriental Club. Present: Messrs. Ackworth, Brooke-Mockett, myself and Messrs. Gilkison of Peirce Leslie & Co., Ltd., and Mr. Pinckney. It was then proposed that Mr. Brooke Mockett and I should go to the India Office on the 23rd idem to represent how badly Southern India had been treated over shipping facilities. We accordingly went to the India Office on that day but Mr. Kershaw unfortunately could only see us for a few minutes as he had to attend a Committee. The same day a letter was sent to Mr. Kershaw asking that he would arrange for a cablegram to be sent to the Ministry of Shipping asking that the Teas lying at the ports of Southern India should be allowed to be shipped freely by the ships expected to leave at this end of the month or early in November as some recompense for the unfair treatment in the past, and Mr. Kershaw wrote, or at any rate it came from the India Office, the following:—

"In reply to your letter of the 23rd October on the subject of Tea shipments from Southern India, I am instructed to say that the telegraphic communication has been sent to the Government of India." So that I hope this will result in the shipment of larger quantities of Tea being allowed in the near future.

The general opinion is that the Government are about to take over all Teas in India, but should such not be the case, we will again approach the India Office and try to get more equitable treatment in the future than we have received in the past.

I have been in touch with Mr. O. A. Bannatine besides the gentlemen already mentioned but have yet not got into correspondence with Messrs. Romilly and Hodgson. In the meantime I am getting into touch with Mr. Steele, the Chairman of the Indian Tea Association, (through Mr. Croll), with regard to a proposal that a S. Indian Tea Association, such as the U. P. A. S. I, suggest should be formed. The idea is that they have the organisation and that they should allow us to have our own Association in their building and that one or two representatives would join their Board. This, however, at the moment, is in the air, and I may be premature in writing to you what is being done. Should any scheme crystallise I will at once let you know.

Yours faithfully,
(Signed) H. M. KNIGHT,

29th October, 1917,
Hill Ash, Dymock,
Gloucester.

FLETCHER NORTON, ESQ., Secretary,

United Planters' Association of S. India, Bangalore.

Dear Sir,—I thank you for yours of 8th September received this morning, conveying me the resolution passed at the Annual General Meeting of the Association in August last relative to forming a S. Indian Planting Association in London.

I shall be only too happy to join such an Association and to make myself useful in any possible way. The distance I live from London, and I am sorry to say, my increasing deafness will I fear militate much against my usefulness, but all that I can do I will do. Moreover I am convinced that the formation of such an Association as the U. P. A. indicate is a step in the right direction. In my opinion it has been a long-felt want.

You will probably have already heard from Mr. Knight, that he, Messrs. Brooke Mockett, Gilkison, Pinckney and myself have already met and set things going.

We are approaching the India Office on shipping difficulties, furnishing that office with Statistics as to how S. India has been treated in comparison with Ceylon and North India, and I hope our efforts may bear fruit. We must look to those who live in or near London to carry on the work, though, were my services required in any urgent case, I would willingly proceed thither.

Yours faithfully,
(Signed) GRANVILLE L. ACWORTH.

23, Gledhow Gardens, South Kensington,
London, 30th October, 1917.

FLETCHER NORTON, ESQ.,

Secretary, United Planters' Association of S. India.

Dear Mr. Fletcher Norton,—I have to thank you for your letter of 8th September with copy of a Resolution unanimously passed at the meeting (Annual) of the above Association recommending the formation of a London South Indian Planting Association affiliated to the U. P. A. S. I. I heartily concur in this scheme and will communicate with the gentlemen named in your letter regarding it.

Yours faithfully,
(Signed) BROOKE MOCKETT.

Stanmore (Anamalay) Estates, Ltd.,
17, Gracechurch St.,
London, E. C., 6th Nov., 1917.

THE SECRETARY, U. P. A. S. I., Bangalore.

Dear Sir,—I thank you for yours of the 8th September, which owing to being wrongly addressed reached me only last week. I have met Mr. H. M. Knight and he was going to let me know what was proposed to be done with regard to the resolution which was passed at the Annual General Meeting in August, copy of which you have now sent me. I have to thank the Meeting for including my name in the prospective Committee, and if it is possible I shall be glad to do what I can.

Yours faithfully,
(Signed) O. A. BANNATINE,

23, Gledhow Gardens, London, S. W.
30th October, 1917.

Prohibition of Import of Coffee into U. K.

Secretary, U. P. A. S. I., Bangalore.

Dear Mr. Fletcher Norton,—I duly received your letter of 21st September referring to "Prohibition of coffee to the United Kingdom" for which I thank you. I have always fully realised how extremely seriously the position of coffee planters has been affected by the detention of a great part of their crop in India because the Minister of Shipping has not allotted space for it, and I have worked unceasingly to get this remedied, but even with all the influence of the British Empire Producers' Organisation at my back I have so far not been able to get any tonnage given.

I am still pressing the matter with all my might and have addressed a very strong letter to the Secretary of State for India on the subject. I have also interviewed Mr. Kershaw of the India Office, and an official of the Food Control, and I am hopeful of obtaining a concession for the shipment of all, or some of our coffee ere long.

I have to-day cabled to you as follows viz.:—"Your letter of 21st September (1) fully realise (the) desperate position (of) coffee planters, am still doing my utmost."

I have never relaxed my efforts, but they have so far been nullified by the urgent demand for tonnage for War necessities.

Yours faithfully,
(Signed) BROOKE MOCKETT.

23, Gledhow Gardens, London, S.W.,
30th October, 1917,

THE SECRETARY, U. P. A. S. I., Bangalore.

Dear Mr. Fletcher Norton,—Your estimate of the coming crop of coffee, viz., "Not under Ten Thousand tons" does not at all coincide with advices received by Messrs. Peirce, Leslie & Co. and other agents here who all put the crop at much less. 't is possible that you have included native coffee and to make the matter clear I am cabling to you to enquire.

These firms are also under the impression that a larger quantity of coffee than that mentioned by you in your letter of 21st September, viz., 2,800 tons has been shipped to the United Kingdom, I am therefore including an enquiry concerning this in my cable which is as follows, viz:—"Is estimated ten thousand tons coming crop all plantation, do you confirm only two thousand eight hundred tons past crop shipped here?" It is very necessary that accurate figures be given to Government.

Yours faithfully,
(Signed) BROOKE MOCKETT.

23, Gledhow Gardens,
South Kensington, London S. W.,
7th November, 1917.

SECRETARY, U. P. A. S. I., Bangalore.

Dear Mr. Fletcher Norton,—On the 31st ultimo I cabled to you as follows viz:—"Government formulating scheme to acquire substantial proportion Indian Tea crop" which I confirm. Firms representing Indian and Ceylon Tea Interests have formed a Committee which is negotiating with Government but no decision as to terms have been arrived as yet.

I have to thank you for your wire of 1st instant received this morning viz:—"Ten thousand tons estimated total crop three thousand two hundred and eighty nine tons past (coffee) crop shipped remaining months September two thousand nine hundred and seventy one tons.—All tonnage refused." This was in reply to my telegram to you. Government however require to be informed of the total estimate of *plantation coffee* of the coming crop, and I will endeavour to get these figures from Peirce Leslie & Co., who are in telegraphic communication with their agents on the West Coast on the subject and who should be able to supply reliable figures.

I am in constant communication with the India Office and the Ministry of Food who are endeavouring to get facilities for the shipment of the balance of the past crop either to the United Kingdom or to an allied or neutral country.

Yours faithfully,
(Signed) BROOKE MOCKETT.

Chickanhully,
Belur P. O., Hassan District,
13th December, 1917.

TO THE EDITOR,
The Planters' Chronicle,
Bangalore.

Re-organisation of the U. P. A. S. I.

Dear Sir, It would facilitate discussion on this matter if some one would kindly state the position of the following cases under the one rate idea:

I. The lucky man who has no Labour troubles but wishes to continue his connection with his Local Association and U. P. A. S. I.

II. The man who now subscribes to the Labour Department but does not belong to an Association.

III. The man who honestly cannot afford to pay Rs.1-4-0 or Rs.1-12-0 per acre but wishes to continue a member of his Local Association and U. P. A. S. I.

Yours faithfully,
C. J. HAYWARD.

Merchiston Estate, Kallar P. O.,
Travancore, 13th December, 1917.

Re.-Circulars.

THE EDITOR,
Planters' Chronicle.

Dear Sir,—I am in agreement with Mr. J. B. Leslie Rogers' letter in your issue of the 8th instant, on the subject of circulars. It takes 5 days at least for a circular from Bangalore to reach me and often by the time I have made copies and posted them they are another four or five days reaching all my members, who live at distances varying from 3 miles to 150 miles from me and whose letters have often to pass through three or four post offices en route. By the time members' opinions on any subject have obtained by me and forwarded to on the U. P. A. S. I., three weeks can easily pass.

If some such scheme as Mr. Rogers suggests could be worked out, I am sure much time could often be saved in dealing with important subjects.

Yours faithfully,

R. J. A. MOORE,
Honorary Secretary.

South Travancore Planters' Association.

Karie Kollie,
Mercara,
16th December, 1917.

Re.-Circulars.

THE EDITOR,
The Planters' Chronicle,
Bangalore.

Dear Sir,—Re. U. P. A. Circulars and Mr. J. B. Leslie-Rogers letter thereon in your issue of the 8th instant.

I am quite with him on the three points mentioned.

1. That general circulars might with advantage be provided in the "P. C." headed by a note, in different type to catch the eye.—"Will all members of District Associations kindly notify their Secretaries of their" —(wishes, opinions, the information required, &c., the wording to suit the circular) "by return or at an early date."

By these means a great saving of time, stationery, postages, etc., would be effected.

In every Association there are members, (may their numbers increase) who are very keen and make a point of replying, generally by return while some few seldom reply.

If the system were generally understood, the former majority would still reply.

2. Leaflets.—I have nothing to add.

3. Confidential circulars would naturally still be addressed to Honorary Secretaries, who would be able to reply, with the information and papers in their charge, or consult their Committees or General Meetings.

No. 1 would save the posting of, say, tea circulars to purely coffee Districts and *vice versa*.

If the suggestions cannot take place at once (and I admit they may require consideration) they might well be placed on the Agenda of the next U.P.A.S.I. Meeting for discussion and decision.

Yours faithfully,
A. J. WRIGHT.

R. B. G. 486/16.

Custom House, Madras,
13th December, 1917.

Tea.

From

P. Eccles Esq., B.A., I.C.S.,
Collector of Customs, Madras.

To

The Secretary, U. P. A. S. I.,
25, South Parade, Bangalore.

Sir,—In continuation of my letter dated the 11th current, I have the honour to inform you that shippers of tea to the United Kingdom should not pay freight on tea consigned to the Food Controller.

I have the honour to be,
Sir,

Your most obedient servant,

(Sd.) G. N. BOWER,

for Collector of Customs.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

(Secretary's Registered Telegraphic Address "Planting," Bangalore.)

VOL. XII. No. 52.]

DECEMBER 29, 1917.

[PRICE AS. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Contents.

The Compliments of the season to all our Readers with sincere hope that 1918 will see the Empire Victorious and the beginning of the end of this awful war.

The Director of Agriculture, Madras, asks us to publish his thanks to the United Planters' Association of Southern India and to individual members thereof who have sent exhibits to the Planters Section of the Madras Exhibition. Owing to pressure of work he has been unable to reply to them individually and adds "The result is quite a good show of the Planting Products."

Many old planters will regret to hear of the death of Mr. Gilkison at Home on the 10th December and by Messrs. Peirce Leslie & Co. Ltd., his loss will be deeply felt, following so soon that of Mr. John Christie.

We publish the proceedings of the Bi-Annual General Meeting of the Kanan Devan Planters' Association, which was well attended. We commend to general notice the well merited remarks of the Chairman on reading the U. P. A. S. I., Memorial to the Secretary of State for India.

We also publish the proceedings of the Quarterly General Meeting of the North Mysore Planters' Association.

Our Correspondence pages are fully taken up with the Government Tea Purchase Scheme, containing both letters and telegrams which will enable our readers to follow it step by step.

The latter part of the Hon'ble Mr. Knapp's letter to the Secretary is of great importance to Coffee Planters to whom from Para 3 a circular letter has been issued: which we trust will bring forth the information required by Government.

SOUTH INDIA PLANTERS' WAR FUND.

	Rs.	A.	P.
Amount previously acknowledged	67,973	8	2
Mr. A. Yates	100	0	0
Mr. L. Carpenter Turner	25	0	0
"H. R. C."	18	14	5
Total Rs...	68,117	6	7

DISTRICT PLANTERS' ASSOCIATIONS.**Kanan Devan Planters' Association.**

Proceedings of the Bi-Annual General Meeting of the above Association, held in the High Range Club, Munnar, on Saturday, 1st December, 1917, at 3 p.m.

PRESENT.—Messrs. W. A. Lee (Chairman), J. C. Swayne, H. L. Pinches, J. S. B. Wallace, Gerald Walker, G. W. Cole, R. T. Landale, E. H. Francis, L. G. Bennet, A. Yates, A. H. Dixon, J. C. Abbott, W. Fraser, A. J. Wright, E. E. Williams, D. Mackintosh, L. H. Ley, A. G. Murray, E. L. Koechlin, A. Blair Hill, D. V. Crowe, A. W. John, J. M. Bridgman, W. O. Milne, A. W. Leslie, G. R. Strachan (Honorary Secretary).

Visitor.—Mr. A. B. Byres.

Before commencing the proceedings the Chairman said that it gave him great pleasure to see Mr. E. E. Williams back amongst us once more and, on behalf of his fellow Members, accorded him a hearty welcome. The Notice calling the Meeting having been read, the Minutes of the Annual General Meeting held on the 14th July last, having been printed and circulated, were taken as read and confirmed.

The following Agenda was then laid on the table :—

1. Recent release of interned persons.
2. European Association.
3. U. P. A. S. I. General Meeting—Delegates' Report.
4. To elect Sri-Mulam Popular Assembly and Travancore Combined Planters' Association Meeting Delegate.
5. Proposed Reorganisation of U. P. A. S. I.
 - (a) Labour Department.
 - (b) Suggested transfer of Offices to Madras and increase of Secretarial Staff.
6. Madras Exhibition.

1. **RECENT RELEASE OF INTERNED PERSONS.**—Mr. J. C. Abbott proposed the following resolution :—

"That this Association records its strong protest on the Government of India's action in removing the restriction placed upon Mrs. Besant and her Confederates, and considers that this unconditional release cannot but have the effect of weakening the administration of Provincial Government among certain classes, besides being detrimental to the best interests of the country and to the population both British and Indian. The Home Rule propaganda has undoubtedly received stimulus through this action, and though the following is small, yet the effect upon the ignorant and uneducated classes might be such as to cause serious disturbance. While the necessity for reforms is recognised, we think no alterations to the existing form of Government should be more than considered until times are more normal. We approve of, and appreciate all the *Madras Mail* has written, and of the attitude of the European Association, and we feel our views have been fully expressed by our Planting Member in his letter to Government of 24th September."

Mr. Abbott, in amplification of this resolution, said that in common with other members of the unofficial European Community, Planters have hitherto refrained from interfering with Politics, but the apparent weakness lately shewn in dealing with agitation has certainly given cause for alarm; and he thought that we should join with others in recording our protest. Although it is generally conceded that reforms are needed and are bound to come we are of the opinion that they should be gradual, and should not come into effect during the continuance of the present war when all the energies of Government are required to bring it to a successful issue;

The Resolution was seconded by Mr. A. W. John and carried unanimously.

2. EUROPEAN ASSOCIATION.—In support of the European Association Mr. A. J. Wright addressed the Meeting as follows :—

Mr. Chairman and Gentlemen,—The activities of this Association have been prominently before us recently and I have been asked to take this opportunity of pressing its claims for support, not only upon the members of the KANAN DEVAN PLANTERS' ASSOCIATION, but upon all residents in the HIGH RANGE who are eligible for membership. I am glad to learn from your Honorary Secretary that 20 new members have signified their desire to join in response to his appeals, to which number has to be added 7 who have been members for some time. Twenty-seven is by no means all we can do and I trust that one and all will use their influence to induce every European Resident in this district to join. The younger generation are sparsely represented and it is to them I would particularly appeal, urging them to become members and so have a hand in making the bed they are to lie on. Political changes are imminent which are bound to change the conditions of life in India and are therefore a matter of greater relative importance to those whose term of service is commencing than to their seniors. The annual subscription is only Rs. 5 though this may have to be raised if activities have to be continued on the present scale, still, if doubled it would not be prohibitive.

The membership of the European Association has been increasing steadily under normal conditions. In 1915 it was 3,370 and a year later 4,241 but now stands at over 7,000. Its leadership is in the hands of heads of commercial undertakings who have for years past considered it worth their while to devote their time to its work. Crises are always sudden and we should be thankful that this organisation existed to meet the present situation. It has been able to make EUROPEAN opinion felt and recognised in high quarters both in India and in England. But for its existence the claims of a very important community might easily have been overlooked for lack of adequate means of putting them forward.

We are greatly indebted to the ASSOCIATION and its officials for the service they have done us. In return they appeal for our support. Let us give it to them and give it to them unanimously in recognition of their efforts and to strengthen their hands for the greater efforts still ahead.

The Chairman thanked Mr. Wright for his interesting remarks and proposed that the Honorary Secretary be instructed to issue a further Circular to all Assistants urging upon them the necessity of joining the European Association.—Carried unanimously.

3. U.P.A.S.I. GENERAL MEETING—DELEGATES' REPORT.—Mr. W. A. Lee then read his Report as follows :—

Gentlemen,—The 24th Annual General Meeting of the U. P. A. S. I., was held at Bangalore from 20th to 24th August inclusive. Messrs. H. L. Pinches A. J. Wright and myself had the honour of representing the Association.

The Meetings were largely attended and were fully representative of the various District Association. From the Agenda, copy of which lies on the table, you will see the business before Delegates was considerable. It is unfortunate the Book of Proceedings is not yet to hand, as a perusal of the discussions in Committee with a full Report of the business transacted in open Meeting, would have been helpful to Members and given information which your Delegates' Report cannot possibly convey. Your Committee agreed that this Book of Proceedings should be circulated to all Members free of charge, and the Honorary Secretary will have copies sent you immediately these reach him. You will find the Book interesting reading and useful for future reference. The various resolutions carried at the Meeting can however be found on reference to the *Chronicle* of 8th September last.

Among the Visitors present was Dr. D. G. Hope of the Indian Tea Association, whose writings are well known to most of us.

This gentleman gave us an interesting address, in the course of which he informed us of the efforts being made by the I. T. A. to have a Fertiliser Act brought into Law. It was unanimously resolved that the U. P. A. S. I. do support the I. T. A. in their efforts in this direction.

Mr. C. A. D. Stuart, I.C.S., Director of Agriculture was also present. As you are aware he succeeds Mr. Chadwick, who during the past year visited Russia on a Commercial Mission, and is now Indian Trade Commissioner in London.

Messrs. Chadwick and Black's interesting Report on Indo-Russian Trade, shows the possibilities of an increased market for Indian Produce, and in trade generally, between the two countries after the War is over.

This pamphlet is in the Honorary Secretary's hands and your Committee have decided to circulate the copy among Members. Mr. Strachan will no doubt have this done at an early date.

Messrs. Anstead and MacRae attended the Meeting. Both gentlemen delivered interesting Lectures which have been published in the *Planters' Chronicle* and have doubtless had your interested perusal.

As you will see on reference to the Memo. of Resolutions every proposal save one had the support of your Delegates. This one, upon which the Meeting was at all divided, was as to the form the Resolution to Government on "The Financing of the Planting Industry" should take. The amendment in this instance had the support of your Delegates and became the finding of the Meeting.

The chief points on the Agenda more directly interesting to us as an Association were the following:—

1. Cochin Harbour.
2. Tea Imports into India,
3. Imperial preference for Tea and Coffee.
4. Act xiii of 1859.

5. Shipping freights—tonnage and Tea allotments.
6. Financing the Planting Industry.
7. Planting Mycologist.
8. Indian Trade Commissioner in London,
9. Labour Department.
10. Indian Defence Force.

and a short reference to those may be of advantage.

COCHIN HARBOUR.—The resolution passed in 1915 was reaffirmed, and it is noted with satisfaction that His Excellency, Lord Pentland, when on a visit at Meppadi, Wynaad, stated that the question of this Harbour has the support of the Madras Government. We therefore expect the construction of this harbour will be proceeded with immediately times are more normal.

TEA IMPORTS INTO INDIA.—As you are aware large quantities of inferior teas have been dumped in the S. India markets. The question was discussed in Committee and the following Resolution was proposed in General Meeting and unanimously carried :—

“ That the Government be respectfully requested to take the necessary steps to prevent the importing of all outside teas into India, as the increasing Indian consumption will afford some measure of relief in the position caused by War conditions and the present restriction of Exports.”

IMPERIAL PREFERENCE FOR TEA AND COFFEE.—A lengthy Resolution asking for Imperial Preference for the above was unanimously adopted. The latest advices *re* the Export of Coffee are, for the Coffee Planter, most serious. We gather that the shipping Controller has at present definitely refused to find space from this country to the United Kingdom. Further strong representations have been made by those concerned as also by our Chairman and Planting Member.

ACT XIII of 1859.—Government earlier in year asked, that the planting Community express their views as to the necessity for this Act, and the best method of avoiding abuse of its provisions.

The Association unanimously agreed to protest against an amendment, which would in any way weaken its provisions as they at present stand, but recommended, in order to avoid abuse by Petty Land-owners and others, should such occur, the following :—

1. That cognizance should not be taken of any Contract not in writing.
2. Or for a period exceeding one year.
3. And that repayment of the amount due, should stay any proceedings taken by a Court under the Act.

SHIPPING FREIGHT—TONNAGE & TEA ALLOTMENTS.—In comparison with N. India and Ceylon, S. Indian Planters have felt that little consideration had been given to their requirements in the way of freight. After considerable discussion the following Resolution was proposed by Mr. J. J. Murphy and unanimously carried.

“ That though this Association is aware that the statement recently made in Parliament by Mr. Montagu as to the question of

"Export of Tea and Rubber from Tuticorin and Malabar Ports not having been put before the Government of India does not appear to be in accordance with actual facts, and though it appreciates the efforts made by the Government of Madras on behalf of the Planting Community, it is of opinion that the interests of the Community cannot be receiving the attention they deserve from the Government of India, and the Ministry of Shipping, and respectfully requests the Government of Madras to receive a deputation at a very early date from the U. P. A., of S. India with reference to Tonnage from Madras, Tuticorin and Malabar Ports for Tea, Coffee and Rubber to the United Kingdom."

With regard to tea allotments a Conference of Planters and Representatives of Firms interested was held at Calicut in June last. Mr. Eccles, I. C. S., Collector of Customs was present.

This Meeting nominated Committees in the various Districts, to scrutinize crop estimates before same were sent to Government for allotment purposes. The Form and particulars required by Government were agreed to. Originally 1/3rd of such Estimates were allotted for shipment to the United Kingdom—later the figure was increased to 43%, exclusive of teas already sold on War Contracts. Up to the present the position remains the same.

FINANCING THE PLANTING INDUSTRY.—The amendment was carried and reads as follows:—

"That, in view of further information which has come to light since the finance meeting in May last at Madras, this meeting do leave the settlement of the Finance difficulties of Planters to the Government of Madras, on the advice of the Conference, which the Government of Madras will call as soon as full information regarding planting requirements has been given."

This Conference has been held and a private Report of the proceedings circulated. You have therefore the latest available information on this important question.

PLANTING MYCOLOGIST.—The Director of Agriculture assured us everything possible was being done by Government to secure a Mycologist for the Planting Districts, and it is hoped that the services of an efficient Officer can be secured at an early date. It was the unanimous opinion of the Association that the initial headquarters of this Mycologist should be at Coimbatore, where he would have facilities to conduct his work to the best advantage, until such time as a suitable permanent Station is decided on.

THE PROPOSED LONDON S. INDIA PLANTERS' ASSOCIATION. INDIAN TRADE COMMISSIONER IN LONDON.—Resolutions recommending both were unanimously passed.

LABOUR DEPARTMENT.—The working of the Department is well known to most of us present. It is however felt by Subscribers that if the life of the Department is to extend over the five year's period agreed upon, reorganisation is necessary.

Mr. Lake, Mysore Delegate, proposed the following resolution:—"That the Director, Deputy Director, and Control Committee with power to add to their number, be asked to prepare a scheme of reorganization of the Labour Department on the basis of a subscription of approximately Re. 1 per acre."

It is hoped that a scheme on the lines proposed by the Hon. Mr. Barbar will meet with the support and approval of Subscribers, as also of those, who, while Members of the U. P. A. S. I., have up to now for various reasons, withheld their support, and that the result of this proposed reorganization will give us a full Representative Department, and thus unite and strengthen the whole U. P. A. S. I. on this vital question.

INDIAN DEFENCE FORCE.—Mr. Pinches brought this subject up and had the unanimous support of the Meeting to his Resolution which reads:—
 "That Government and the Military Authorities be asked to confer with
 "the Planters' Association of S. India, regarding the application of the
 "Indian Defence Force Act to Planting Districts, firstly, with a view to
 "ensuring that the assistance obtained from the Planting Community is as
 "efficient as possible from a Military point of view, and secondly, to put a
 "stop to the unnecessary disorganization of Planting business."

A U. P. A. S. I. Circular gives the following reply from the General Officer Commanding the 9th Division:—

"I do not see any necessity for a Conference at present, but should be
 "glad if the Planters' Association would give me any specific instances of
 "hardship or expenses incurred under the present procedure. If these
 "show any necessity for a conference I shall be glad to arrange it."

In conclusion gentlemen we thank you for the honour you have done us in electing us to represent our Association. Should there be any points upon which Members desire further information, your Delegates will be pleased to answer any questions you may wish to make.

(Signed) ALBERT J. WRIGHT,

(„) H. L. PINCHES,

(„) WILLIAM A. LEE.

Mr. W. O. Milne proposed a hearty vote of thanks to the Delegates for the very able and efficient manner in which they had represented our interests at the Bangalore Meeting, and for the full and interesting Report which had just been read. Seconded by Mr. G. Walker and carried unanimously.

4. SRI MULAM AND TRAVANCORE COMBINED PLANTERS' ASSOCIATION MEETING DELEGATE.—The Chairman proposed that Mr. A. J. Wright, who had for several years represented the Association at the Sri Mulam, be again elected as our Delegate at the forthcoming Assembly. Further that he be also asked to attend, on our behalf, the T. C. P. A. General Meeting which would be held in Trivandrum at the same time. Carried unanimously.

5. PROPOSED REORGANISATION OF THE U. P. A. S. I. (a.)—With reference to the Resolution passed at the recent General Meeting of the Anamalai Planters' Association, suggesting that the proposed inclusive subscription for the U. P. A. S. I. and Labour Department be based on the following acreage rates, *viz.*:—Tea Rs. 2 per acre, Rubber Rs. 1/12 per acre, Coffee and other Products Rs. 1/4 per acre, a copy of which had been circulated amongst District Associations for an expression of opinion, Mr. J. M. Bridgman proposed the following Resolution:—

"That while this Association is in favour of the general principle of
 "the proposed inclusive U. P. A. S. I. subscription, which would

"embrace the various Departments, such as Labour, Scientific, etc., it reserves a definite expression of opinion until such time as further particulars are forthcoming."

Seconded by Mr. G. Walker and unanimously carried.

(b) Mr. A. G. Murray proposed the following resolution:—

"This Association approves of the suggestion that, whenever practicable, the Offices of the U. P. A. S. I. be transferred to Madras as a more convenient business centre, and that an increase to the Secretariat is advisable."

This resolution gave rise to considerable discussion in which several Members took part, but after the advantages of the proposal had been pointed out by the Chairman and others, it found a seconder in Mr. H. L. Pinches and was carried unanimously.

U. P. A. S. I. MEMORIAL TO THE RR. HON'BLE ME, MONTAGU.—This was read to the Meeting and thereafter the Chairman said;—"The Memorial just read out gives us yet another instance of how our Chairman and Planting Member endeavour to keep our interests before the authorities and, although at the General Meeting a hearty vote of thanks was accorded to them, still I consider our Association should more expressly convey our thanks to these gentlemen who have worked so hard for us and I have pleasure in proposing the following;—"

"That the Honorary Secretary be instructed to convey to our Chairman and Planting Member, the acknowledgment and appreciation of this Association, for all the work done during a specially arduous year, and very thoroughly recognises the time and labour, which has been so ungrudgingly given by those gentlemen in their efforts to protect and further the interests of the whole Planting Community of S. India. The Memorial about to be presented to the Secretary of State—so clearly, concisely, and effectively drawn up, is deserving of very special reference and recognition from us. It will no doubt receive from Government the consideration it so well deserves."

The vote was carried with acclamation.

6. MADRAS EXHIBITION.—The question as to whether the Association should, or should not, exhibit at the forthcoming Madras Exhibition was considered. After general discussion the opinion arrived at by the Meeting was that if no representative of the U. P. A. S. I. had been nominated to attend, it was not considered worth while to send exhibits.

A letter from the Chairman, U. P. A. S. I. regarding his and Messrs. Parry & Co's scheme for supplying Tea and Coffee to the Refreshment Stalls of the Exhibition on the basis of 2 lbs. per 100 acres of the Association's subscribing acreage and at half present selling rates *i.e.* annas 6 and 4 respectively, was read. Mr. H. L. Pinches pointed out that so far the above was apparently only a proposal, and suggested that the Honorary Secretary be instructed to wire the Chairman asking for information as to whether the scheme is going through or not. In the event of an answer being received in the affirmative the Association would support the scheme.

Before closing the Meeting the Chairman made reference to the regret he knew was felt by all at the serious illness of Mr. A. W. L. Vernede and he proposed that the Honorary Secretary convey to our aged friend the sympathy of this Association. He was sure it would hearten and cheer the old gentleman in his weakness to be assured that those assembled here had him in their thoughts. Carried unanimously,

(*Note.*—Unfortunately Mr. Vernede died on the night of the Meeting before it was possible to advise him as to the above.)

A vote of thanks to the Chair terminated the proceedings.

(Signed) WILLIAM A. LEE,
Chairman.

(Signed) G. R. STRACHAN,
Honorary Secretary.

North Mysore Planters' Association.

Proceedings of the Quarterly General Meeting held at Balehonnur on the 7th December, 1917.

PRESENT.—Messrs. C. Danvers (Chairman), C. P. Reed, C. H. Browne, R. G. Foster, E. W. Fowke, and W. H. Reed (Honorary Secretary.)

RE-ORGANISATION OF THE U. P. A. S. I.—Read U. P. A. S. I. circular dated 4th December, 1917. After some discussion the members present were unanimously of opinion that the scheme sketched out is good and promising, and the Honorary Secretary was asked to circulate it for the benefit of Members and Non-Members, and request their opinions, as the matter is of considerable importance.

It is understood that under this new scheme, all who join the U. P. A. S. I. and Labour Department, would do so under the *old* rules, i.e., through the District Associations. The total subscriptions would be Rs.1/6 per acre, i.e., Rs.1/4 to the U. P. A. S. I. for General Purposes including Labour Department, Scientific Officer, etc.,) and 2 Annas for the expenses of this Association.

PROHIBITION OF COFFEE & FINANCE.—The Hon. Secretary was instructed to telegraph the following resolution to the Secretary U. P. A. S. I. as the matter was most urgent. "Request Upasi impress on Government of India urgent need removal of embargo on import Indian Coffee into the United Kingdom and provision of tonnage to carry crop to England and France failing that the Government be requested to purchase crop for current season at reasonable rate not less than Rupees 45 per cwt."

ACT 13 OF 1859.—This subject was fully discussed, and it was agreed that this Association was not in favour of Act I but think the U. P. A. S. I. should take steps to consult their Solicitor as to whether any further action should be taken with regard to the judgment recently passed in the Kerela case.

MANGALORE DELEGATE'S REPORT.—Mr. Godfrey's report was read as follows:—

ARSIKERE-MANGALORE RAILWAY.—At the Meeting in Mangalore on 15th before the Governor of Madras, there was considerable support from several speakers following upon a very detailed and able exposition of the case in favour of the above by the Collector, who also expounded the claims of an alternative Shimoga-Malpi-Mangalore line. I recorded and confirmed the N. M. P. A.'s pledged support of the first and of the second—if the first fell through—in opposition to the Bhatkul line.

SHIPPING.—H. E. was only able to say he would press the necessity of the allotment of some space for coffee to the U. K., to France and to P. Gulf *through the Government of India*; he made a special note that 3,000 tons say in February and same end of April or early in May would be all that is required to relieve our difficulties. *But personally* I doubt if the Government of India will be able to move the Shipping Controller to alter his decision. However we may be more successful as regards Persian Gulf.

FINANCE.—I may say we were generally very disappointed in what we could gather as regards the result of the *Ooty Conference* on 5th instant re above which appears to be simply "that the Government of Madras have recommended to the Government of India to arrange that three lakhs of Council Bills may be weekly earmarked for Planting in South India." In other words nothing was *settled*; nor did the Government of Madras come to the Conference with previously obtained authority to *settle* the matter; which was what we were led to expect they would by what we were told at the U. P. A. S. I. *If*, which is extremely doubtful, the above concession is *granted*, I fear it will only help large concerns with credit available in England, for and individuals who have "produce" *in sight* as security. The delay in *publishing* the result of the Ooty Conference seems inexcusable and inexplicable.

THE YELNUR GHAT ROAD is "noted," but shelved for the present (No funds).

(Signed) W. H. REED,
Honorary Secretary.

FISH GUANO.

Mr. Mathias of Mangalore writes as follows, which he thinks may interest the Planting Community:

"My brother planters must be already aware that the prices of most of the chemical manures as also of fish manure and fish guano in particular have declined sharply from about 20 to 40 per cent. owing to the present deplorable condition of the coffee market coming at the top of the generally short crops of the current season. I should think that it is but fair that the rate for sheep manure should also be proportionately reduced. Under the present rates for manure, fish guano free from fat, sand and other insoluble waste matter appears to be economical, due regard being had to its properties as compared with other manures. Recently I got analysed a good sample of fish guano of past season with the result of 7.70 Nitrogen and 7.98 Phosphoric acid. It is also time to consider the question of the reduction of the wages for men coolies. But the price of provisions are ruling very high at present."

CORRESPONDENCE.

Letter No. 7G. 17-16.

Finance Conference at Ootacamund, on Oct. 5th, 1917.

From

THE HONORABLE MR. A. R. KNAPP, I.C.S.,
Acting Secretary to Government,
Revenue Department,

To

THE SECRETARY,
United Planters' Association of Southern India.
Port St. George, 20th December, 1917.

Sir,—I am directed to address you on the subject of the financial assistance to tea, rubber and coffee planters discussed at the Conference held at Ootacamund on the 5th October last.

2. The suggestions made at the Conference were placed before the Government of India. That Government has now pointed out that the new scheme for the purchase of tea on behalf of the food Controller may be expected to solve the difficulties under which the tea planters were labouring. In regard to rubber it is observed that exports are above the normal and show a tendency to increase, that freight for the carriage of rubber is provided in sufficient quantity and that banks have been instructed to give preference in finance to exports of rubber. The Government of India are therefore of opinion that no further assistance is necessary so far as rubber estates are concerned.

3. They are however prepared to consider the question of coffee estates which have not the advantage of provided freight or of anything but secondary preference, in the matter of finance. Before coming to a decision on the subject, they desire information on the following points :—

(a) Whether the case to be considered is limited to the fact that difficulties have been experienced in obtaining from the banks the necessary finance of exports or

(b) Whether the planters require funds for the maintenance of their estates in addition to finance for their exports and if so

(c) Whether any and if so what proportion of the estates are in a position to make repayment to the banks in London if such additional funds are supplied to them by banks in India. The Government of India observe in this connection that large quantities of coffee have been exported in the current year to non-European markets, particularly to the regions surrounding the Persian Gulf and they would be glad to know how far these exports have actually been financed.

4. I am to request that I may be furnished as early as possible with any information which your Association can supply in answer to these questions.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) A. R. KNAPP,

Acting Secretary to Government.

Ootacamund,

21st December 1917.

Government Purchase of Tea.

THE SECRETARY,

U. P. A. S. I.,

Bangalore.

Dear Sir,—On receipt of a wire from the Revenue Secretary, Madras, that it was necessary for someone to be in Madras while the arrangements for the purchase of South India Tea were in progress, I went to Madras on 5th instant. On 7th and 8th December I discussed matters with the Hon'ble Mr. Knapp and Mr. Eccles and it was decided that it would simplify matters and save a deal of correspondence if I went to Calcutta and discussed the whole position with Colonel Kennedy. On 9th December, I had the opportunity of consulting the Chairman, who had come to Madras, on the points of reference and that evening I left for Calcutta.

The points at issue were as follows:—

1. To see that S. India secured a proper proportion of the purchases.
2. To arrange the prices on some other basis than that of pre-war averages.
3. To see if payment could be made on delivery at the warehouse instead of f. o. b.
4. To arrange shipping facilities at Tuticorin, Cochin and Calicut.
5. At Mr. Eccles suggestion, to arrange half yearly allotments instead of monthly allotments.
6. To obtain priority for tea on the Railways.

As you are aware the arrangement made by the Food Controller was to purchase 40% of the 1917 crop and it was not till I got to Calcutta that I understood exactly what this meant. It is not a basis, as I think most of us in S. India imagined, but an actual. The North India crop is finished or finishing and the concerns in the North are invited to tender up to 40% of their actual 1917 production. Those who have shipped or otherwise disposed of more than 60% of their 1917 crop will not be able to tender up to 40%, for no new crop will be available till after the end of May.

I explained to Colonel Kennedy that such an arrangement would not be applicable to us for before the end of May, 5 months of our new year's crop would be in sight and held up undisposed of, and I also pointed out that we had numerous new estates just coming into bearing, so the basis of our 1917 crop would not be fair to them. I asked, and he has agreed, subject to the approval of the Food Controller, that we shall be allowed to tender up to 40% of our 1918 estimates for delivery between 1st November and 31st May.

My rough estimate of the crop was 35 millions, so this would allow up to 14 millions or an average of 2 millions monthly. This deals entirely with the first point and the decision rests with the Food Controller at Home.

In regard to prices I pointed out the difficulties in regard to pre-war averages as many factories had started work since 1914 or very shortly before that date. It was then agreed that flat rates for districts should be arranged and passed by the Advisory Committee. I think that pre-war averages for those estates that have them and district flat rates for the others, will be the fairest, but this is a matter for the Advisory Committee to decide and place before the Tea Commissioner.

The third point, payment at warehouse could not be agreed to but it will have to be taken up again by the Advisory Committee should tonnage be delayed or not sufficient for our requirements.

The fourth point in regard to tonnage was discussed. As an economy in railage, Madras, as a shipping port is eliminated, and Colonel Kennedy has asked the Food Controller to arrange with the Shipping Ministry for 1,000 tons monthly to be distributed between Cochin, Calicut and Tuticorin.

The request for half yearly allotment, point 5, is not necessary under the present arrangement. The tenders will be for delivery up to the end of May and the Food Controller reserves the right to take delivery up to the end of July. The Tea Commissioner has written to the Railway Board asking for priority on railways to ensure prompt delivery.

In dealing with the matter, I had the help of Mr. R. Graham of Messrs. James Finlay & Co. Ltd., and I have to thank both that gentleman and Colonel Kennedy for the time they placed at my disposal.

The copies of telegrams and communications which I enclose herewith may make the whole position clear.

Colonel Kennedy asked me on my return to Madras Government in regard to his having a part time officer to assist him in S. India, and also to see the Exchange Banks in regard to the negotiation of the Bills he would draw on the Food Controller.

The Madras Government have asked the Department of Commerce and Industry that Mr. Eccles may help the Tea Commissioner and the Exchange Banks, while they cannot say definitely that they can buy the bills, and are doubtful if they will be able to, still will all do their best.

Mr. Eccles has kindly consented to act as Secretary to the Advisory Committee and this should facilitate matters.

One point has been raised and that is that the addition of, 5d. is not sufficient to cover the increased cost of production. I put this matter forward but it has already been taken up by the Indian Tea Association.

I enclose copies of telegrams, that have passed and shall be obliged if you will publish them together with this letter in the *Planters' Chronicle*.

Yours faithfully,

E. F. BARBER.

Cable of 30th November from the Indian Tea Association, London.

Mine 15th scheme accepted by Indian and Ceylon producers Full details cabled Indian Government. F. O. B. price in London sold teas arrived at by deducting nine tenths of penny from average London sale price. For Calcutta sold teas deduct sale charges add cost of shipping. Controller pays export duty. Food Controller takes over tea on steamers cleared Indian ports on or after 1st November at prices specified in scheme paying freight and all other charges cash on delivery London warehouse. Telegraph if information required on any points.

Letter No. 140T. C., dated 3rd December 1917 from the Tea Commissioner for India.

In continuation of my memo No. 134T. C., dated the 1st instant forwarding a copy of the Government of India's telegram No. 1033D., dated

the 30th November 1917 communicating the arrangement arrived at by the Food Controller for the purchase of tea in India, I have the honour to say that as the Food Controller has now decided to purchase 40% of the crop of the year 1917, the statistics which I previously asked your Association to be good enough to collect for me will now be no longer required. I shall inform you later what information will be necessary in order to enable me to conclude contracts under the revised scheme. I regret having occasioned your Association so much unnecessary trouble.

Government of India's telegram No. 1033D, dated the 30th Nov. 1917 referred to in the Tea Commissioner's letter of 3rd Dec., 1917.

Copy of telegram from the Secretary to the Government of India Commerce and Industry Dept., to the Tea Commissioner for India, dated Delhi, the 30th November, 1917.

1033D, Secretary of State wires begins. An agreement has now been reached between the Food Controller and the Indian Tea Association here acting for London proprietors. The Indian Tea Association have acted throughout in consultation with Indian Tea Association, Calcutta price F. O. B. Indian Ports will be average London auction price realised for crops of 1911, 1912 and 1913 less nine tenths penny per pound for intermediate charges and cess plus one half penny for increased cost of production. The latter allowance may be increased to three farthings for Northern or Southern India, if before date to be arranged. Indian Tea Association here consulting with representatives of Southern India satisfy the Food Controller that increased cost of production justifies this. Your Tea Commissioner will be informed by the Tea Controller here when decision is reached. Tea Controller will also inform Tea Commissioner later if deduction of nine tenths penny for intermediate charges requires any adjustment cess on all tea exported and export duty on civilian tea will be paid by Food Controller. Tea Controller will conclude contracts with companies controlled here. Tea Commissioner making contracts with producers not represented here for contracts here above price will apply to all tea in ships clearing on or after November 1st and as controlled arrangements would be seriously disturbed by arrival of private tea, it is highly desirable Tea Commissioners contracts should cover all tea in ships clearing on or after November 1st. In case of War Office tea contracts now running till end of the year will stand as previously intimated. Food Controller is not prepared to conclude contracts beyond May 31st excluding War Office tea shipped in November and December total quantity to be shipped between November 1st and 31st May is approximately one hundred and forty million pounds that is forty per cent. of the estimated crop of 1917 assuming crop to be three hundred and forty million pounds. Standard quantity therefore to be contracted for with each concern will be approximately 40 per cent. of all grades of tea produced by each garden. Tea Controller and Tea Commissioner in communication adjusting differences when higher or lower percentage is contracted for, for special reasons. Payment will be made for quantity shipped, Tea Commissioner drawing on Financial Secretary of Ministry Food on date of shipment at four months' sight. Delivery of total amount contracted for will be taken in equal monthly instalments so far as freight arrangements permit, but in any event delivery in warehouse of whole quantity will be taken and payments made on or before August 31st. Payments made in August bearing interest 6 per cent. per annum from August 31st. Producers will be responsible for warehousing charges for

one month after date specified by Tea Commissioner for arrival at warehouse. Food Controller paying such charges after that period. Food Controller asks that export on private account be prohibited at once but prompt utilisation of freight is first consideration this settles all outstanding points and scheme may be introduced immediately. Kennedy to be placed in direct communication with Tea Controller here.

Telegram dated 3rd December 1917 from the Tea Commissioner for India to the Food Controller, London.

143T. C. Tea purchase scheme. In case of concerns controlled in India presume prices will be Calcutta auctions 1911-1912-1913 plus half-penny or three farthings if ultimately decided and in case of similar concerns selling in London, London averages 1911 to 1913 plus half-penny or three farthings less nine tenths penny at exchange sixteen pence. In case of concerns selling partly London and Calcutta presume average sale price of both markets will be taken. In case of concerns selling crops or portion thereof outside London and Calcutta markets or new concerns with no pre war sales how is price to be arrived at. Will Tea Controller or I pay for teas in transit from 1st November till Government shipments begin and what is position regarding teas purchased in Calcutta market and shipped home. Please instruct to what extent you wish teas tendered are fair quality with reference to standard of manufacture of garden in previous years. If below standard are teas to be rejected or accepted at reduced prices. Difficult to undertake thorough examination tea shipped from Chittagong and Madras ports. Awaiting reply before calling for tenders. My telegraphic address TEACOM, Calcutta.

Further telegram dated 3rd December 1917 from the Tea Commissioner of India to the Food Controller, London.

149T. C. Tea Control. Your decision to purchase forty per cent. of crop of 1917 was based on assumption that crop would be three hundred and forty million pounds but from figures obtained from Director Statistics were 1916 crop was three hundred and sixty eight million pounds including produce of all provinces except Burma and this year's crop likely to exceed 1916 crop by about five million pounds. Will this fact alter percentage to be purchased.

Copy of telegram from *Foodminders*, London, to the Tea Commissioner for India, Calcutta. (10th December, 1917).

Tea purchase scheme the main scheme has now been accepted by both the Indian and Ceylon Tea Associations. Your telegrams dated 3th and 5th December. In cases of concerns controlled in India, prices will be Calcutta auctions 1911, 1912, 1913 less sale expenses and other Calcutta charges, plus half-penny or three farthings, if ultimately decided, for excess cost of production. In case of similar concerns selling in London as stated in your telegram, sellers to put on Board. In cases of concerns selling partly London partly Calcutta, take average sale price of both markets with necessary adjustments. In cases of concerns selling crops or portion thereof outside Calcutta or London markets or new concerns with no pre-war sales, you will arrange price to be paid in these special cases according to value of tea. Food Controller will pay for teas in transit as on and from 1st November till Government shipments begin. Teas purchased in Calcutta market and shipped United Kingdom from 1st November have been bought by Food Controller at half penny profit c. i. f. Ask Govern-

ment of India to allow shipment of teas bought and paid for on or before 26th November, including teas purchased in auction 20th November up to quantity that could have been shipped under license issued with validity up to 22nd February next. Food Controller has made arrangement to buy same at half penny profit on F. O. B. cost Indian ports. It is essential that you should arrange that every grade should be examined by your experts and that they should satisfy themselves that same is up to standard quality, and you should arrange with each garden to have samples of each grade sent you seven days before the arrival of the teas at port of shipment. If quality is below standard of manufacture of garden in previous year, accept same, but in case of Indian controlled gardens you arrange reduction in price; in case of London controlled gardens advise Food Controller who will arrange reduction. Garden weights are to be accepted meanwhile, but final payment will be made here on customs weight. As regards shipments from Chittagong and Madras Ports suggest that if your experts pass the forward muster samples as being of average quality from estates shipping from Chittagong and Madras, bulk could be shipped until further arrangements for examination can be made by you at the two ports. All tea will be inspected here and claims made for inferior quality or defective packing. Start buying on 40 per cent. basis even though 1917 crop is approximately three hundred and seventy three millions. Accept 1916 crop as part of 40 per cent. provided these teas are shipped immediately. Price for 1916 crop will be arranged here in consultation with London owners, but you should arrange reduced price with Indian owners. Hope get 26,000 tons for India for December Government shipments will not be insured. Cable immediately quantity of civilian tea shipped since November 1st, and also names of ships that cleared from an Indian port on or after November 1st, containing Indian tea. Instructions are being sent to the Secretaries of the Liner Conference at all tea ports authorising them to ship teas on Government account. Freight will be paid by the Ministry of Food on arrival of steamers in the United Kingdom. It is essential that there should be no hiatus in shipments and that tonnage space provided is fully utilised.—FOODMINDERS.

417 T. C. 423 T. C. Dated 11-12-17.

Copy of telegram dated the 12th December, 1917 from the Tea Commissioner for India, Calcutta, to the Food Controller, London.

451 T. C. Your telegram tenth instant kindly instruct on the following points in doubt. In calculating price for Indian controlled concerns selling Calcutta Tea Association London advise association here that sale charges should be deducted and, shipping charges added. You do not mention addition of latter. Are there any other charges and may I fix flat rate per pound for adjustment between sale and shipping charges. What are other Calcutta charges to which you refer. In cases of concerns selling crops or portions of outside London or Calcutta markets and new concerns with no pre-war averages presume basis of valuation will be prices paid for similar teas under this scheme. You refer to final payment by you presume this only has reference to adjustments necessary account weight or quality and that I pay contract price in full. As you are examining teas at Home I suggest that tea representatives of Northern and Southern India agree with me that it is unnecessary to incur expense and labour in having teas examined here also by experts.—Teacom.

Copy of telegram dated the 12th December 1917 from the Tea Commissioner for India, Calcutta, to the Food Controller, London.

453T.C. After conference with Barber Southern India tea representative solicit instructions on following points relating to Southern India only. Gardens manufacture all year round and such large number have now extensions or are entirely new suggest I call for tenders of forty per cent 1918 estimated crop as passed by Advisory Committee otherwise if only 1917 teas can be tendered allotments of many estates will be inadequate and some will be excluded altogether. Fixation of prices Southern India will be difficult as I understand many estates have no pre-war averages. As Temporary arrangement have asked Barber to suggest flat rate for each District based on average London prices 1911, 1912, 1913 with necessary addition and deduction. Madras itself very inconvenient port for shipment. Could Madras be eliminated and tonnage distributed Calicut, Cochin and Tuticorin. Present tonnage allotted to Madras ports inadequate total of about one thousand tons required monthly.—Teacom."

Copy of telegram dated the 15th December 1917 from the Tea Commissioner, Calcutta, to the Hon'ble Mr. E. F. Barber.

702 T. C.—706 T. C. At conference here to-day with Controller Currency and representatives Tea Industry and Exchange Banks it was decided that Controller Currency should recommend to Government of India that Bills of Exchange on Food Controller should be drawn as usual by shippers and not by me, I only countersigning invoices of cost and charges. Drawers of bills may include brokerage, stamp duty and other costs in bills also tea cess and export duty, which they should pay as usual. In case of private concerns which cannot arrange to draw bills, I shall do this for them. As a temporary measure and pending sanction of Government, these arrangements will apply to teas now shipped to Food Controller from Madras ports as soon as interim flat rate arranged. Please inform shippers accordingly.—TEACOM.

Copy of telegram from the Hon'ble Mr. E. F. Barber, dated 18th December to the Tea Commissioner for India, Calcutta.

Government Madras are asking Commerce to let you have Eccles to help you in Madras. Exchange Banks are doubtful under present circumstances if they can negotiate bills. In regard to prices I have asked Advisory Committee to collect pre-war averages from those estates that have them and to fix flat rates for new estates, meantime may bills be drawn on Cheviot Range shipments at a rate of, say, six pence per pound to provide the finance required.

Copy of telegram from the Tea Commissioner for India, Calcutta, to the Hon'ble Mr. E. F. Barber, dated 19th December 1917.

980T.C: Your telegram yesterday. Exchange banks here say that Madras Banks must take Madras Tea bills and such bills should accordingly be presented to Madras Exchange banks. I agree to flat rate of six pence or six annas per pound for tea shipped by Cheviot Range pending arrangement of flat rate per District. For present and pending final orders of Government estates or Agents should themselves draw bills of exchange on Financial Secretary Ministry of Food at four months sight with document attached charging Brokerage stamp duty and other charges in bill. Before drawal of bills invoices of cost charges steamers must be countersigned by Collector Customs and three spare copies of documents beyond those required to be attached to bills should be forwarded to Eccles one copy for

retention by him and two copies to be forwarded to me one for Food Controller and one for my office.—Teacom.

Copy of telegram from the Hon'ble Mr. E. F. Barber, Ootacamund, to the Tea Commissioner, Calcutta, dated 21st December, 1917.

Your telegram nineteenth Exchange Banks anticipate difficulty in purchasing Bills but are ready to do so if possible. Six annas agreed to by you pending settlement of rates I conclude this rate will be adjusted to the rates agreed upon subsequently. Understand that Shipping Agents will not sign Bills of Lading pending instructions from Shipping Ministry regarding payment of freight in order to get Bills drawn may 15 per cent of freight be paid and added to the bills. Insurance must shippers cover risk from warehouse to steamer. At three ports the steamers lie out so risk is considerable.

Ootacamund, 22nd December 1917.

Government Purchase of Tea.

THE SECRETARY, U. P. A. S. I.

Dear Sir,—Further to my letter of yesterday I beg to enclose telegrams which have since passed.

From these you will see that the Food Controller has not accepted the suggestion that the 1918 estimate should be the basis of purchase.

1917 estimates are required for tenders and the 1917 actuals before contracts are made.

I fear there will be difficulty in receiving these figures before the New Year.

Yours faithfully,

E. F. BARBER.

Copy of telegram from the Tea Commissioner for India, Calcutta, dated 20th December, 1917 to the Hon'ble Mr. E. F. Barber, Ootacamund.

1118 T. C. Food Controller wires begins suggest as regards percentage to be bought from Southern India you call for tenders on estimated 1917 crop and contract for quantity equivalent to forty per cent of 1917 crop ends. To enable me to call for tenders I shall require particulars actual total crop 1917 and estimated total crop 1917 as certified by Committee. Please send this as soon as possible—TEACOM.

Copy of telegram from the Hon'ble Mr. E. F. Barber to the Tea Commissioner for India, Calcutta, dated 22nd December, 1917. Your 1118 am circulating Committee to obtain information you require.—BARBER.

(Signed) BARBER.

BARBER & PASCOE, Ootacamund, Nilgiris.

CONFIRMATION OF TELEGRAM.

From Barber, Ootacamund.

To Planting, Bangalore.

Date of Message: 22/12/17.

Message: Food Controller suggests calling for tenders of Forty per cent. estimated 1917 crop and contracts for quantity equivalent to forty per cent. of 1917 actual crop, to enable him to call for tenders. Teacom requires particulars estimated and actual 1917 crop as certified by Advisory Committee as soon as possible. Please advise District Associations and Committee.

Dated 22nd Dec., 1917.

BARBER.

